

ED 030 751

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VT 008 831

Leadership Role, Functions, Procedures and Administration of Vocational Technical Education Agencies at the State Level. Final Report. Volume II: An Analysis of Factors Associated with Differences in Perceptions of State-Level Administration of Vocational-Technical Education.

Spons Agency-Office of Education (DHEW), Washington, D.C. Bureau of Research.

Bureau No-BR-8-0066

Pub Date Oct 68

Grant-OEG-O-8-080066-347-085

Note-97p.

EDRS Price MF-\$0.50 HC-\$4.95

Descriptors-*Administrator Role, Geographic Regions, Leadership, *National Surveys, Participation, *Professional Personnel, Program Attitudes, Role Perception, *State Departments of Education, Supervision, Tables (Data), *Vocational Education

Identifiers-Group Interview Guide

This phase of the nationwide study of vocational education was conducted to investigate factors which might be associated with differences in perceptions of state administration by selected groups. The role of the state agency of vocational-technical education was defined in terms of leadership, regulation, and involvement of appropriate groups in planning and implementation of programs. Reactions to a series of questions were elicited from 1,898 individuals in 39 states and Puerto Rico by means of the Group Interview Guide. The instrument also included items pertaining to attitudes held by these groups toward vocational-technical education. Some conclusions were: (1) Regional differences exist in perceptions of state-level administration, (2) Differences may be related to some extent to the degree of urbanization of state population, (3) Differences in perceptions by region also affected state agency organization, program enrollment, and funds, (4) The great variability in response patterns within each of the groups indicates that other factors have contributed to the views of the individuals composing these various groups. Volumes I and III of this study are available as VT 008 833 and VT 008 832. (CH)

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FINAL REPORT

Project No. 8-0066
Contract No. OEG-0-8-080066-3478(085)

LEADERSHIP ROLE, FUNCTIONS, PROCEDURES AND
ADMINISTRATION OF VOCATIONAL-TECHNICAL
EDUCATION AGENCIES AT THE STATE LEVEL

Volume II (of three volumes)

An Analysis of Factors Associated with Differences in
Perceptions of State-Level Administration of
Vocational-Technical Education

October 1968

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

VT008831

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Final Report

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Volume II;

≡ An Analysis of Factors Associated with Differences in
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Vocational-Technical Education. ~~Final Report~~

J. Chester Swanson
Director

October 1968

The research reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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PREFACE

The Project, Leadership Role, Functions, Procedures and Administration of Vocational-Technical Education Agencies at the State Level, has been organized into three research studies which have been separately published under the following titles:

Volume I --- A Nationwide Survey of Vocational-Technical Education: Its Status and Organization on the State Level, Year 1966-67.

Volume II -- An Analysis of Factors Associated with Differences in Perceptions of State-Level Administration of Vocational-Technical Education.

Volume III -- A Pilot Study for a Planning-Programming-Budgeting System for Vocational-Technical Education Programs in Secondary Schools and Community Colleges.

These studies represent a continuation and expansion of an earlier research program undertaken by the same principal investigator whose findings were published in August 1967, under the title, A Nationwide Study of the Administration of Vocational-Technical Education at the State Level.

The research reported in Volume I of the current project was under the overall direction of J. Chester Swanson, project director, who assumed primary responsibility for the development and implementation of the study. Collection and tabulation of the data were the main responsibility of Elizabeth F. Cone. Statistical analysis of the data was under the direction of Phyllis A. Warren, the assistant project director.

The following State Directors of Vocational Education provided general counsel in the development of this nationwide survey of vocational-technical education: J.R. Cullison, Arizona; Wesley Smith, California; John Bunten, Nevada; William Loomis, Oregon; and Ernest Kramer, Washington.

Walter Arnold, former Assistant Commissioner for Vocational and Technical Education, and Edwin Rumpf, Division of Vocational and Technical Education served as general consultants to the project and

provided assistance and support to all the professional staff in the development and implementation of their various studies.

The research reported in Volume II was based upon the previous work of Allen Lee and Charles Achilles who designed and developed the Group Interview Guide, the data gathering instrument to assess perceptions of state-level administration of vocational-technical education. These data were further analyzed for the current study by Phyllis A. Warren under the general supervision of the Project Director.

The research design and development of A Pilot Study for a Planning-Programming-Budgeting System for Vocational-Technical Education Programs in Secondary Schools and Community Colleges (Volume III) was completed by J. Chester Swanson. This project was made possible through the active participation and cooperation of James Reusswig, Superintendent of the Stockton Unified School District, California; and Julio L. Bortolazzo, former Superintendent of the San Mateo Junior College District, California. Major assistance was given the research staff by Dr. Gordon L. Chamberlin, Associate Superintendent, Business, Stockton Unified School District; Robert F. De Bord, Coordinator, Vocational Education, Stockton Unified School District; William A. Goss, President, Cañada College, San Mateo; Matteo V. Fassanaro, Business Manager, San Mateo Junior College District; and Mrs. Irene Blutz, Assistant Business Manager, San Mateo Junior College District. Data collection and analysis were conducted by Harold Kinser, Robert G. Lewis, Lance Rogers, and C. John Van Zomeren.

It is hoped that these three studies can make a meaningful contribution toward greater understanding of the scope of the leadership role, function, procedures and administration of vocational-technical education at the state level.

J. Chester Swanson
Project Director

Berkeley, California
November 30, 1968

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Volume II: An Analysis of Factors Associated with Differences
in Perceptions of State-Level Administration of
Vocational-Technical Education

SUMMARY

This study reports the further analysis of data which were collected during Phase I of this project. It is a study of the perceptions of state-level administration of vocational-technical education by different groups of people in 39 states and Puerto Rico. The first report, published in September 1967, described on a national basis how various groups perceived the actual and ideal performance of state divisions of vocational-technical education (SDVE) in the enhancement of vocational-technical education programs. This report also provided data concerning attitudes toward vocational-technical education held by these several groups.

The role of the state agency for vocational-technical education was defined in terms of three dimensions: leadership, regulation, and involvement of appropriate groups in planning and implementation of vocational-technical education programs. An instrument, the Group Interview Guide, was utilized to elicit reactions to a series of questions pertaining to these three dimensions. Groups of respondents represented staffs of state divisions of vocational-technical education (SDVE), educators from local and area schools and higher education (other educators), and members of state boards of education, state advisory councils, and state legislatures (lay policy-makers). The instrument also included items pertaining to attitudes held by these groups toward vocational-technical education.

Responses to the Group Interview Guide were organized into groups or clusters as follows in order to describe the perceptions by these groups of:

1. The present performance of SDVE leadership function
2. The ideal performance of SDVE leadership function
3. The present performance of SDVE regulation activity
4. The ideal performance of SDVE regulation activity
5. The respondents' attitudes toward vocational-technical education
6. The present performance of SDVE involvement function
7. The ideal performance of SDVE involvement function
8. The respondents' perceived need for more SDVE leadership
9. The respondents' perceived need for more SDVE regulation
10. The respondents' perceived need for more SDVE involvement of others.

A total of 1,898 individuals in 39 states and Puerto Rico completed the Guide during the first phase of the study. Results obtained by groups of respondents from state to state varied widely.

The purpose of the present study was to investigate factors which might be associated with differences in perceptions of state-level administration of selected groups as measured by the Guide. Five research objectives were specified as follows:

1. To determine whether there are significant differences among the nine regions designated by the U.S. Office of Education in responses measuring perceptions of state-level administration of vocational-technical education by the following groups:
 - a. The state division of vocational education
 - b. Educators from local schools, area vocational schools, and institutions of higher learning
 - c. Members of the state boards of education, state vocational education advisory councils, and legislatures
 - d. All educators (including state agency) primarily concerned with vocational-technical education
 - e. All educators (including state agency) who are not directly concerned with vocational-technical education.
2. To determine whether there are significant differences in perceptions of state-level administration of vocational-technical education among respondent groups as listed above within each of the nine regions.
3. To determine whether group perceptions of state-level administration of vocational-technical education within a state are related to the percentage of population that is urban.
4. To determine whether there are significant relationships between selected factors in state organization for administration of vocational-technical education and perceptions held by pertinent groups within state-level administration of vocational-technical education.
5. To determine whether there are significant relationships between selected indices of state vocational-technical education programs such as enrollments, expenditures, etc., and perceptions of state-level administration of vocational-technical education.

Perceptions of the several respondent groups, as measured by the scores obtained on the 10 clusters of items enumerated above, were analyzed in accordance with these five objectives. Data were subjected to standard statistical treatment, including analysis of variance technique, student's t test, rank order correlation and product-moment correlation in order to determine the validity and reliability of these data.

Results of analyses of data are presented and discussed in terms of each of the five objectives, as follows:

1. Results of regional analysis of perceptions of state-level administration of vocational-technical education (objectives 1 and 2).
 - a. On the basis of results of a regional analysis of perceptions it can be concluded that staff members of state divisions of vocational-technical education in the sample hold varying views concerning their proper role and functions as measured by the three dimensions of leadership, regulation and involvement. This group in general appears to perceive itself as engaging in a greater amount of involvement activity than either leadership or regulation. However, regional differences emerge when this group assesses its aspired ideal levels of leadership and regulation. In Regions I (New England), IV (South Atlantic), VI (Midwest), VII (Southwest), SDVE members place more emphasis upon regulation than they do upon leadership. In the other five regions, this group perceives a higher level of ideal leadership than of ideal regulation.
 - b. In general, it can be said that educators sampled from local area schools and higher education--the "clients" of the SDVE--judge the performance of its functions by the SDVE more critically than do the agency members. The former group also tends to have lower expectations for the SDVE. However, there are distinct regional differences. Expectations for SDVE leadership are definitely lower than the nationwide average in Regions I (New England), II (Middle Atlantic), VI (Midwest), and VIII (Mountain).
 - c. Although the group of lay persons representing state boards of education, state advisory councils, and state legislatures was small in number and apparently very heterogeneous, this group generally shared similar perceptions of actual

SDVE role with the group composed of SDVE staff members in all regions except Regions III (East Central), IV (South Atlantic), V (North Central), and VII (Southwest). In the Southern-oriented states, these lay policy-makers tended to perceive the SDVE as performing its role on a higher level than did the SDVE group itself. In Region VI (Midwest) the lay group viewed the performance of the SDVE at a lower level than did the SDVE group.

- d. When all educators in the sample associated directly with vocational-technical education were compared with educators not directly concerned with vocational education, the vocational educators appeared to be more supportive of the role of the SDVE. It perhaps can be concluded that those who were the direct recipients of SDVE services valued these services and, thus, expressed a higher level of satisfaction with SDVE performance of its functions than did those whose contact with the SDVE was necessarily limited. Another possible explanation of these results might be that vocational educators as a group identify with the SDVE and, thus, tend to want to protect the agency's image.
 - e. Attitudes toward vocational-technical education varied among all groups region to region. Attitudes were least favorable in Region II (Middle Atlantic) and most positive in Region VIII (Mountain). However, there were distinct differences among respondent groups within regions. Wide divergences of attitudes between vocational and non-vocational educators were found in all regions except I, IV, V, and IX.
2. Results of analysis of relationship of perceptions of group residing in predominantly urban or predominantly rural states indicated a slight tendency for respondents from rural states to perceive a somewhat higher level of SDVE performance of its role and functions. These respondent groups also tended to have slightly higher expectations for the ideal role of the SDVE in performing leadership, regulation and involvement functions. It might be suggested that persons living in a more urban environment tend to be more critical of all aspects of state government and to expect a lower level of performance by state agency personnel generally than do people living in a more rural setting. Also, it is possible that the traditional vocational agricultural education program has so appropriately

met the needs of rural populations that they have developed a higher regard for vocational education than have persons from urban areas.

3. Results of analysis of relationship between perceptions of and organization for state-level administration of vocational-technical education.
 - a. From the study of possible relationship between perceptions of state-level administration of vocational-technical education and method of selection of members of the state boards of education, it can be concluded that those groups composed of SDVE members, other educators and lay policy-makers in this sample tend to hold less differentiated views concerning SDVE performance in those states in which members of the state board of education are elected than in those states in which members are appointed. Moreover, in those states in which state board of education members are elected, the SDVE group places greater emphasis upon the emerging leadership role and involvement of others than upon the traditional function of regulation.
 - b. Results of analysis of relationship between perceptions and method of selection of the chief state school officer appear to indicate higher regard for the state-level administration of vocational-technical education in those states in which the chief state school officer is appointed than in those states in which he is elected. Moreover, the self-concept in these states of the SDVE members' own performance of their functions appears to be considerably more favorable than accorded this performance by the agency's "constituents."
 - c. On the other hand, study of the relationship between attitudes toward vocational-technical education and method of selection of the chief state school officer would indicate that attitudes held by lay policy-makers and SDVE members were more favorable in those states in which the chief state school officer was elected rather than appointed. Such a finding may possibly suggest that in those states in which the state educational agency is in the public limelight and politically responsible to the people, the education establishment tends to be more responsive to the electorate's expectations.

- d. The group of SDVE members from states in which the status of the state director of vocational education was the lowest in the hierarchy of state-level administration tended to have lower self-concepts of their role than did either of the groups with higher status. Correlatively, all groups including educators from schools and higher education held the most positive attitudes toward vocational-technical education in those states in which the state director of vocational education reported directly to the state board for vocational-technical education.
4. Results of analysis of relationship between perceptions of state-level administration of vocational-technical education and selected indices of vocational-technical education programs.
 - a. It was found that there was a positive relationship between perceived level of SDVE performance and size of enrollments in vocational education. Apparently in those states having the highest ratios of enrollments to total population, all groups including the SDVE itself at least partially attributed this phenomenon to the quality of performance by the state agency of its functions of leadership, regulation and involvement of others.
 - b. Expectations of the ideal role of the SDVE appeared to rise with average annual increases in total expenditures for vocational-technical education. In other words, the more funds available for these programs, the more was expected of state agency administration. Moreover, in those states in which the proportion of local and state funds to total funds for vocational-technical education were highest, both lay policy-makers and educators from schools and higher education perceived the actual role of the SDVE more favorably than in those states with the lowest proportion of local and state funds to total funds.

In conclusion, it may be stated that there are regional differences in perceptions of state-level administration of vocational-technical education. It appears that these regional differences may be related to some extent to the degree of urbanization of state population. In those regions in which states tend to be more rural in population, perceptions of state-level administration of vocational-technical education appear to be somewhat more favorable. Also, there seem to be some regional differences in state organization for the administration of vocational-technical education which may be related to varying perceptions.

Moreover, enrollments in and funds for vocational-technical education appear to vary from region to region and are apparently related to perceptions of state-level administration of vocational-technical education and to general attitudes toward vocational-technical education.

Thus, a number of factors appear to be associated with differences in perceptions by selected groups as measured by responses to the Group Interview Guide. However, the variability in response patterns within each of the groups studied was very great, indicating that many other factors have contributed to the views held by individuals composing these several groups.

No attempt was made either in the original study or in this continued analysis to isolate demographic or personality differences among the individual respondents in their perceptions of state-level administration of vocational-technical education. What bearing such factors as age, educational attainment, occupational level and experience, would have on individual perceptions or attitudes were not studied in this continued analysis because the original research design did not require the kind of sampling of respondents which would be necessary for such an investigation. Hence, appropriate and valid data were not available.

Future research might deal with various psychological and social correlates with concepts of the role of the state agency for administering vocational-technical education. Such pertinent information might help state directors of vocational education to enhance their leadership role and improve state-level administration of vocational-technical education.

Volume II: An Analysis of Factors Associated with Differences
in Perceptions of State-Level Administration of
Vocational-Technical Education

I. BACKGROUND AND DIMENSIONS OF THE STUDY

This study reports the results of continued analysis of data previously collected during the initial 18-month phase of the research program, "Leadership Role, Functions, Procedures and Administration of Vocational-Technical Education Agencies at the State Level."¹

One of the major objectives of this first research effort was to assess the perceptions of state Agency personnel, representatives of educational policy making groups and other educators concerning the appropriate roles and functions of state agencies for vocational-technical education.

This investigation was predicated on the thesis that the state agency (division) of vocational education (SDVE) has both a regulatory function and a leadership function. Furthermore, it was assumed that contemporary society's expectations of the role of the SDVE included (a) greater emphasis upon leadership; (b) the involvement of both educators and lay persons in planning and implementing vocational-technical education programs; and (c) less emphasis upon the traditional supervision-inspection-regulation function.

Within this framework, the dual regulatory and leadership role of the SDVE was conceptualized as including the following dimensions:

- (a) the traditional regulatory function, perceived as that of
 - (1) setting and maintaining minimum standards, (2) keeping

¹ J. Chester Swanson, et al., A Nationwide Study of the Administration of Vocational-Technical Education at the State Level, IV: Study of Perceptions of State-Level Administration. Berkeley: University of California, School of Education, August 1967. (Final Report, Project No. 6-2921, Contract No. OEG-4-6-000542-0001.)

records and making reports, (3) checking local district compliance with state regulations, (4) developing uniform statewide curricula, and (5) inspecting local district facilities and programs.

- (b) the emerging leadership role, defined as encompassing such activities as: (1) setting goals, (2) defining problems, (3) researching, (4) developing programs, (5) field testing, (6) dissemination, and (7) implementation.

It was deemed that an essential element of the leadership role was the active involvement of at least four groups: the state department of education, local schools, higher education, and the Federal government.

Therefore, the focus of the research was upon the state agency for vocational-technical education (referred to in the study as the state division of vocational education or SDVE). The role of the SDVE was studied in terms of the perceptions of what are and what should be the functions and activities of this agency, as expressed by representatives of local schools, area vocational schools, higher education, business, labor, the SDVE itself, the rest of the state department of education, and other relevant agencies.

A Group Interview Guide was designed to elicit reactions in terms of both the actual and the ideal from representatives of these reference groups to a series of questions pertaining to the three basic dimensions of leadership, regulation, and involvement. The interview guide also included items pertaining to attitudes held by these groups toward vocational-technical education.²

In analyzing the responses to the Guide, seven basic clusters of items and three derivative clusters were developed and utilized. These represented perceptions of:

1. Present performance of SDVE leadership function
2. Ideal performance of SDVE leadership function
3. Present performance of SDVE regulation function
4. Ideal performance of SDVE regulation function
5. Respondents' attitudes toward vocational-technical education
6. Present performance of SDVE involvement function
7. Ideal performance of SDVE involvement function.

² Ibid.

Analysis of the difference between actual and ideal scores obtained by respondents to the leadership, regulation and involvement clusters was undertaken in order to assess the level of satisfaction with the present degree of performance by the SDVE. Hence, a low "difference" score was deemed to indicate that the respondent perceived little need for the SDVE to perform more effectively than it now was performing.

The three "difference" clusters were:

8. Respondents' perceived need for more SDVE leadership
9. Respondents' perceived need for more SDVE regulation
10. Respondents' perceived need for more SDVE involvement of others.

Respondents were classified as members of mutually exclusive groups:

1. State division of vocational education (SDVE)
2. State department of education (other than SDVE)
3. Local schools
4. Area vocational schools
5. Higher education
6. State board of education
7. State advisory council
8. Legislature
9. Other non-educators.

A total of 1,783 individuals residing in 37 states and Puerto Rico were included in the original study. (An additional 115 persons from two more states were included in the sample for the present study.) However, this total sample was treated as two separate samples both purporting to represent the national population of the nine respondent groups. The reason for separating the total group into two samples was that changes had been made both in format and content in the Group Interview Guide after the first 905 persons responded to the instrument. Statistical tests applied to both groups yielded high degrees of probability that the responses of the groups were, in fact, within the expected range of responses of the total national population. However, there were substantial differences between the mean cluster scores obtained by the two groups of respondents, and results were published separately for both samples (N=905 and N=878).

Generally, scores obtained by respondent groups in the sample (N=905) on the three clusters measuring actual leadership, regulation and involvement were somewhat higher than the scores of those in the sample (N=878). The ideal scores for these three functions were somewhat

higher for the respondent groups in the sample (N=878) than for those in the sample (N=905). Thus, it would appear that respondents in those states included in the sample (N=905) were more satisfied with the present level of performance of, and had lower expectations for, the SDVE in all three dimensions than were those in the other sample (N=878).

However, the relationship among the mean scores obtained by the nine respondent groups within each of two samples was consistent. For example, scores obtained by the SDVE group in both samples were consistently higher than those of the group representing local schools.

The differences reported between mean (average) scores of respondent groups in the two samples could be somewhat misleading, inasmuch as a rather wide range in scores was obtained by each respondent group on most item clusters. The variances reported in terms of standard deviations would seem to indicate considerable heterogeneity within each group of respondents.³ Although there appeared to be distinct differences in mean scores between the two samples, the extent of overlap in scores was marked. In other words, both samples obtained comparably wide ranges in scores but one sample tended to have somewhat higher average scores than did the other.

Thus, the present study was undertaken in order to investigate various factors which might be associated with this wide range (variance) of scores obtained within selected respondent groups in each of the two samples, and with the differences in average scores of respondent groups between the two samples of respondents.

It should be emphasized that the states participating in the study were not randomly selected. The 21 states included in the first sample of 905 respondents were not selected either randomly or systematically but were simply the first 21 states which consented to participate in the study. The second group of 17 states and Puerto Rico were simply the second set of states which agreed on a time and place for data collection. Only time did not permit participation of the remaining states not included in either sample. There was no purposeful elimination either by any state or by the project staff from participation in the study.

However, by coincidence, it would appear that the two groups of states differed in several respects. One of these differences appeared to be geographic location. For example, in the sample of 17 states (N=878) nine states could be classified as Southern states, while in the other

³ Ibid., IV, pp 56-58.

sample of 21 states (N=905) only two states were in the South.

Moreover, there appeared to be differences between the two groups of states with respect to proportion of state population deemed to be urban versus rural. For example, in the sample of 17 states (N=878), six of the states could be classified as rural while in the other group of 21 states (N=905), only three states could be so designated.

In analyzing the results from other research undertaken in the Nation-wide Study of the Administration of Vocational-Technical Education at the State Level,⁴ striking differences in organization were found between the two samples of states drawn for the study of perceptions. Differences between the two samples could be identified in terms of the status of the State Director of Vocational-Technical Education in the hierarchy of the state administration of public education.

Substantial differences were also found between the two groups of states with respect to ratio of total vocational-technical education enrollments to total state population; and in ratio of SDVE program staff to teachers of vocational-technical education.

It appeared, therefore, that several factors might be associated with differences in the perceptions of state-level administration of vocational-technical education held by various respondent groups as measured by the Group Interview Guide.

⁴ Ibid., III: The Current Status of the Organization for Administration of Vocational-Technical Education at the State Level, and Appendix III, Tabulations of Data.

II. PURPOSE AND OBJECTIVES OF THE STUDY

The initial report of the study of perceptions of state-level administration of vocational-technical education described on a national basis how various groups perceived the actual and ideal performance by these agencies of their assigned responsibilities for leadership, regulation and involvement of others in the planning and operation of vocational-technical education programs. This report also provided data concerning how these groups generally viewed vocational-technical education in the nation as a whole.

It is important to recall that the primary goal of this research program has been to provide pertinent information to state directors of vocational education and their staffs which might contribute to enhancing their leadership role and improving state agency administration. Each state participating in data collection has received a special individual report describing how various groups in that state perceived the SDVE and what attitudes these groups had toward vocational-technical education in that state. The state Director's only yardstick for comparison has been the national results.

In order that each state Director might be able to make a more meaningful analysis of his own state's scores obtained from the Group Interview Guide, it was decided to utilize the vast amount of data already collected and processed to provide more detailed results.

The specific research objectives may be listed as follows:

1. To determine whether there are significant differences among the nine regions designated by the U.S. Office of Education in Group Interview Guide responses obtained by the following groups:
 - a. The state division of vocational education
 - b. Educators from local schools, area vocational schools, and institutions of higher learning
 - c. Members of state board of education, state vocational education advisory council, and legislature
 - d. All educators (including state agency) primarily concerned with vocational-technical education
 - e. All educators (including state agency) who are not directly concerned with vocational-technical education.
2. To determine whether there are significant differences in

perceptions of state-level administration of vocational-technical education among respondent groups as listed above within each of the nine regions.

3. To determine whether group perceptions of state-level administration of vocational-technical education within a state are related to the percentage of population that is urban.
4. To determine whether there are significant relationships between selected factors in state organization and perceptions held by pertinent groups of state-level administration of vocational-technical education.
5. To determine whether there are significant relationships between selected indices of state vocational-technical education programs (e.g., enrollments, expenditures) and perceptions of state-level administration of vocational-technical education.

III. METHOD

Source of Data

The present study has utilized only those data which were collected and processed during the previous 18-month research project, ending in July 1967. The methodology, including instrument design and development, data collection, processing and preliminary analysis, has been fully reported elsewhere⁵ and shall not be repeated here.

Previous data processing had generated mean (average) scores and standard deviations for each of the ten item clusters from the Group Interview Guide for each respondent group in each of the 39 states and Puerto Rico.

The first task was to determine whether it was possible to combine the mean scores of individual states into the classifications designated under the several research objectives, without regard to their respective membership in one or the other of the two national samples utilized in the original study. When the mean cluster scores of each respondent group in each state were combined and average scores for each group in all 39 states and Puerto Rico were computed, it was found that these combined mean (average) scores did not differ significantly from the original mean scores obtained for each sample in the original study. Thus, this finding supported the thesis that differences in scores between the two samples of respondents were not due to the minor changes in format and content of the Guide. These changes had been the only reason for treating the data as stemming from two different groups within a nationwide population. It was decided, therefore, that it would be appropriate to utilize the data collected for each individual state and to combine these data in order to complete further analyses of group responses to the Guide.

Procedures

Procedure to determine whether there were significant regional differences in perceptions of state-level administration of vocational-technical education.

⁵ Ibid., II: Method, pp. 14-15, and IV, pp. 41-48.

Although it would have been preferable statistically to compute regional mean scores and standard deviations from the original data, it was deemed more economical and efficient to utilize the already available state mean scores and standard deviations to derive regional mean scores.⁶

The first step, therefore, was to combine the data from the states into their appropriate regions.

Due to the small number of cases in certain respondent groups in several regions, these data were not subjected to analysis for this study. These groups included the state department of education respondents who were not SDVE staff members, and the groups of non-educators representing other state agencies, labor, management and civic organizations.

Because only 39 states and Puerto Rico were included in the national sample, several regions were under-represented. All states located in Regions I and II were included in the sample. In Region III only four states and Puerto Rico among the five states, District of Columbia, Virgin Islands, and Puerto Rico were in the national sample. Region IV had three of its six states in the sample. Four-fifths of the states in Region V were sampled. Five out of seven states in Region VI were in the national sample. Four-fifths of the states in Regions VII and VIII, and six out of the seven states and two U.S. territories in Region IX were included in the national sample.

In order to meet the first research objective, analysis of variance technique was used to determine if there were significant differences among the nine regions in the mean cluster scores of respective respondent groups.⁷

In comparing the average cluster scores obtained by these respondent groups within each region, both analysis of variance technique and student's t test were applied in order to achieve the second research objective.

⁶ Helen Walker, Elementary Statistical Methods. New York: Henry Holt Co., 1943. See pp. 143-146 and 305-307 for statistical justification for method of combining subgroup means and standard deviations into total group mean and standard deviation.

⁷ Helen Walker and Joseph Lev, Statistical Inference. New York: Henry Holt Co., 1953. See pp. 226-227 for application of analysis of variance to groups for whom original scores are not available.

Procedures to determine whether group perceptions of state-level administration of vocational-technical education within a state were related to the percentage of population that is urban.

Average (mean) scores obtained on each of the ten clusters of items from the Guide for three respondent groups (the SDVE; a composite group of non-state agency educators comprising representatives of local schools, area schools and higher education; and a group of lay policy-makers, composed of members of state advisory councils) were utilized in this phase of the study.

Within the sample of 39 states, nine states had populations 75 percent or more urban and nine states had 50 percent or less of the population urban.⁸ The state mean cluster scores of each of the three respondent groups were tabulated according to this dichotomy: the nine states with the highest percentage of population urban and the nine states with the lowest percentage of population urban.

Combined mean cluster scores and standard deviations were computed for the respondent groups and student's t test was applied to determine whether there were significant differences between the two dichotomous samples of states in group mean cluster scores.

Procedure to determine whether there were significant relationships between selected factors in state organization for administration of vocational-technical education and perceptions of state-level administration of vocational-technical education.

Three factors were selected for this analysis: (1) the method of selection of state board of education members, (2) the method of selection of the chief state school officers, and (3) the position (or status) of the SDVE in the hierarchy of the state administration of public education.

In the sample of 39 states, state board of education members were elected in 12 states and appointed in 27 states. To ascertain whether there were significant differences in perceptions between the respondents resident in these two groups of states, the combined mean cluster scores of each respondent group were subjected to student's t test.

In 14 of these states the chief state school officer is elected, and in 25 states he is appointed. Group mean cluster scores for each state were

⁸ National Education Association, Research Division, Rankings of the States. Washington: NEA, 1966. p. 13.

combined into this dichotomy and student's t test was applied to determine whether there were significant differences between the mean scores of the respondent categories in the two groups of states.

In describing the position of the State Division of Vocational-Technical Education in the hierarchy of the state administration of public education, three categories of organizational structure were defined.⁹ These categories represented three levels of administration:

Category I, first level of administration:

State director of vocational education reports directly to the state board for vocational education (either a separate board or a state board having joint responsibility).

Category II, second level of administration:

State director of vocational education reports directly to the chief state school officer.

Category III, third level of administration:

State director reports to an assistant or associate superintendent of instruction.

Among the 39 states in the present study, in five states Category I prevailed; Category II was found in 21 states; and Category III in 13 states.

Combined mean cluster scores of the respondent groups were computed for each category of states and analysis of variance technique was used to determine whether there were significant differences among respondents in the three categories of states.

Procedure to determine whether there were significant relationships between selected indices of state vocational-technical education programs^{10, 11} and perceptions of state-level administration of vocational-technical education.

Twenty states in the sample of 39 states were dichotomized into the 10

⁹ Swanson, op. cit., III, pp. 24-28 and Appendix III, Sections III and IV.

¹⁰ Ibid., III and Appendix III, Sections VII, VIII and X.

¹¹ U.S. Bureau of Census, Population Estimates, 1966, Series P-25, #384, p. 6.

states with the highest and the 10 states with the lowest: (1) ratio of total vocational-technical education enrollments to total population; (2) ratio of SDVE program staff to vocational education teachers; (3) ratio of total SDVE funds to SDVE program staff; (4) ratio of total vocational education funds to total vocational education enrollments; (5) proportion of local and state funds to total funds for vocational-technical education; and (6) average annual percentage increase in vocational education expenditures.

Combined mean cluster scores of the three respondent groups between categories of states were subjected to student's t test for significant differences.

IV. PERCEPTIONS OF STATE-LEVEL ADMINISTRATION OF VOCATIONAL-TECHNICAL EDUCATION BY REGIONS

Five groups of respondents to the Group Interview Guide were selected for this study of regional differences in perceived role (or functions) of the state agency for vocational-technical education. They were:

1. Professional staff members of state divisions of vocational-technical education (SDVE)
2. Representatives of local schools, area vocational schools and higher education (non-state agency educators)
3. Representatives of state boards of education, state advisory councils, and state legislatures (lay policy-makers)
4. Educators directly concerned with vocational-technical education (vocational educators)
5. Educators not directly concerned with vocational-technical education (non-vocational educators).

To illustrate to what extent the perceptions of each group differed from respondents in general, results for the total sample have also been reported.

The Guide was designed to measure three dimensions of the perceived role of the SDVE: regulation function, leadership function and involvement function. Groups of individuals were asked to react to a series of questions (or statements) which elicited their opinions concerning both the actual and ideal functions of the SDVE in their respective states. In addition, these respondents answered questions aimed toward assessing their attitudes concerning vocational-technical education. The responses of the several groups to the separate items (questions or statements) were combined to form average (mean) scores for clusters (groups) of items. These clusters of items were designated as perceptions of:

1. Present performance of SDVE leadership function
2. Ideal performance of SDVE leadership function
3. Present performance of SDVE regulation function
4. Ideal performance of SDVE regulation function
5. Respondents' attitudes toward vocational-technical education
6. Present performance of SDVE involvement function
7. Ideal performance of SDVE involvement function.

Three derivative cluster scores were obtained in order to measure the perceived need for greater leadership, regulation and involvement.

These clusters were entitled:

8. Respondents' perceived need for more SDVE leadership
9. Respondents' perceived need for more SDVE regulation
10. Respondents' perceived need for more SDVE involvement of others.

This chapter presents the results of a regional analysis of the 10 mean (average) cluster scores for each of the respondent groups enumerated above.

The nine regions utilized for this study are those designated by the U.S. Office of Education. Table 1 (pp. 22-23) gives the distribution of respondent groups by state in these nine regions.

Professional Staff Members of State Divisions of Vocational-Technical Education

Table 2 presents the mean scores and standard deviations of SDVE respondents in each of the nine regions for the ten item clusters. As indicated on the table, significant differences in mean cluster scores between regions were found for all clusters except Cluster 2, Ideal Leadership. This would appear to indicate that the perceptions held by SDVE professional staff members concerning their own actual leadership role varied considerably from region to region. All SDVE respondents apparently shared a similar perception of ideal level or degree of leadership function.

It should be noted at the outset that the sample of SDVE respondents in Regions IV and VIII were small and may not be truly representative of their respective regions. Also, among the three states in Region IV, one had only three SDVE respondents. Thus, one should be exceedingly cautious about generalizing SDVE group results in these two regions.

On Cluster 1, Actual Leadership, mean scores ranged from a low of .614 to a high score of .777. Recalling that the possible score range was .000 to 1.000, it would seem that all SDVE respondents perceive their performance of leadership activities at a relatively high level even though there appeared to be considerable variation in mean scores within regions.

Standard deviations reported on Table 2 for Cluster 1 would indicate more agreement among SDVE members in Region VIII than in any other

Table 1
Distribution of State Samples of Respondents in the Nine
Regions Designated by the U.S. Office of Education

Number of Respondents in Each Group							
Name and Number of States in Sample by Region	SDVE	Non- State Educ.	Lay Leaders	Voc. Educators	Non-Voc. Educators	All But SDVE	Total
REGION I							
Connecticut	14	11	10	20	9	33	47
Maine	10	9	4	17	12	28	38
Massachusetts	18	26	3	30	16	41	59
New Hampshire	8	21	2	18	23	41	49
Rhode Island	11	15	12	21	14	42	53
Vermont	7	13	4	14	8	24	31
Total	68	95	35	120	82	209	277
REGION II							
Delaware	12	16	11	21	14	43	55
New Jersey	20	34	5	36	21	48	68
New York	13	17	4	22	14	32	45
Pennsylvania	9	24	7	27	10	44	53
Total	54	91	27	106	59	167	221
REGION III							
Kentucky	11	29	4	28	15	43	54
Maryland	13	23	3	27	12	45	58
North Carolina	10	28	4	29	21	51	61
Puerto Rico	12	18	3	22	10	32	44
West Virginia	5	19	5	16	13	31	36
Total	51	117	19	122	71	202	253
REGION IV							
Georgia	3	9	10	8	7	28	31
Mississippi	15	15	9	21	12	31	46
South Carolina	15	22	4	29	13	37	52
Total	33	46	23	58	32	96	129
REGION V							
Indiana	12	26	-	33	7	32	44
Michigan	7	19	7	20	12	36	43
Ohio	12	33	6	30	23	55	67
Wisconsin	7	17	5	20	8	30	37
Total	38	95	18	103	50	153	191

Table 1 (continued)

Number of Respondents in Each Group							
Name and Number of States in Sample by Region	SDVE	Non-State Educ.	Lay Leaders	Voc. Educators	Non-Voc. Educators	All But SDVE	Total
REGION VI							
Iowa	16	21	8	27	16	38	54
Minnesota	11	14	2	23	8	26	37
Missouri	10	18	4	22	12	31	41
Nebraska	8	11	2	16	4	20	28
South Dakota	5	12	8	14	4	25	30
Total	50	76	24	102	44	140	190
REGION VII							
Arkansas	8	33	5	25	20	51	59
New Mexico	14	15	3	26	6	26	40
Oklahoma	16	22	7	31	9	38	54
Texas	12	42	3	16	30	66	78
Total	50	112	18	98	65	181	231
REGION VIII							
Colorado	11	28	7	30	13	45	56
Utah	10	20	4	24	11	37	47
Wyoming	6	18	7	14	17	38	44
Total	27	66	18	68	41	120	147
REGION IX							
Alaska	5	12	5	10	9	24	29
Arizona	13	21	6	20	14	40	53
California	6	12	6	12	8	26	32
Hawaii	7	11	9	12	9	36	43
Nevada	9	18	8	16	18	37	46
Oregon	6	29	5	22	19	50	56
Total	46	103	39	92	77	213	259
ALL REGIONS	417	801	221	869	521	1,481	1,898

Table 2

Regional Differences in Mean Cluster Scores of Selected Respondent Groups

1. State Division of Vocational-Technical Education Professional Staff

Region	Number of SDVE Respondents	Clusters										
		1**	2 ^{ns}	3**	4**	5**	6*	7**	8**	9**	10**	
I	68	M	.662	.640	.673	.686	.632	.734	.675	1.322	1.125	1.232
		S.D.	.209	.221	.217	.166	.139	.241	.186	.263	.243	.284
II	54	M	.662	.685	.558	.663	.506	.781	.723	1.380	1.258	1.253
		S.D.	.232	.153	.248	.133	.185	.200	.177	.252	.239	.267
III	51	M	.614	.694	.546	.646	.606	.757	.776	1.430	1.241	1.317
		S.D.	.218	.181	.208	.189	.146	.201	.137	.226	.236	.261
IV	33	M	.777	.713	.735	.762	.618	.845	.815	1.222	1.136	1.130
		S.D.	.193	.178	.178	.133	.164	.164	.144	.194	.178	.206
V	38	M	.703	.640	.647	.639	.610	.778	.724	1.310	1.128	1.239
		S.D.	.198	.176	.169	.156	.165	.178	.151	.236	.167	.207
VI	50	M	.616	.637	.603	.697	.581	.742	.702	1.398	1.256	1.260
		S.D.	.212	.163	.175	.225	.160	.186	.122	.253	.196	.214
VII	50	M	.772	.693	.694	.741	.508	.852	.763	1.309	1.157	1.133
		S.D.	.174	.189	.195	.143	.163	.155	.190	.199	.264	.231
VIII	27	M	.641	.574	.581	.563	.658	.816	.760	1.365	1.174	1.254
		S.D.	.151	.213	.155	.155	.156	.180	.137	.180	.202	.163
IX	46	M	.649	.656	.528	.603	.650	.777	.733	1.375	1.216	1.236
		S.D.	.176	.181	.217	.205	.168	.178	.211	.250	.232	.239
All States Com- bined	417	M	.667	.662	.617	.671	.585	.781	.734	1.349	1.190	1.233
		S.D.	.207	.188	.213	.180	.168	.197	.174	.250	.232	.247

** = Significant difference between regions at .01 level.

* = Significant difference between regions at .05 level.

ns = No significant difference between regions.

region and less agreement among this group in Region II than in any other region. However, despite the amount of variability (variance) of mean scores within regions, the mean scores between regions were significantly different at the .01 level of confidence which indicates that these regional scores were not a product of chance.

In perusing Cluster 2 (Ideal Leadership) scores, it should be useful to compare these with the mean scores obtained on both Cluster 1 and Cluster 8, Leadership Difference. Generally, Cluster 2 mean scores were somewhat lower than those in Cluster 1, which would seem to indicate that SDVE members did not generally desire to assume a stronger leadership role than they were at present undertaking. Assuming that Cluster 8 measured the recognized need for more leadership by the SDVE, respondents in all regions concurred that the SDVE should provide greater leadership. However, the degree of recognized need for change varied significantly among the nine regions. SDVE respondents in Region IV obtained the highest mean score on Cluster 1 and the lowest mean score on Cluster 8, which could perhaps be interpreted to mean that SDVE members in Region III perceive themselves as performing at an exceedingly high level in the leadership function and perceive less need to improve their performance than any other regional group of SDVE members.

SDVE members in the nine regions responded significantly differently to items contained in Cluster 3, Actual Regulation. Mean scores ranged from .528 in Region IX to .735 in Region IV.

On the whole, SDVE members seemed to think that they were performing fewer regulatory activities than they were leadership activities. Only in Region I did the SDVE group perceive that they engaged more in regulation than in leadership.

Perceived ideal level of regulation, as expressed in Cluster 4 mean scores, varied significantly among SDVE respondents in the several regions, with a range of .563 to .762. Except in Region VIII, mean scores were slightly higher on Cluster 4 than on Cluster 3. However, Cluster 9, Regulation Difference, mean scores would indicate that, generally, SDVE members perceived little need for increased regulation activities. Moreover, in comparing Cluster 9 and Cluster 8 scores, it would seem that SDVE members feel much less need for more regulation than they do for more leadership activities.

Involvement of appropriate groups in goal setting, problem definition, research, program development, program evaluation, dissemination and implementation were considered to be an integral part of the

leadership-change function. Cluster 6, Actual Involvement; Cluster 7, Ideal Involvement; and Cluster 10, Involvement Difference, all measured dimensions of level of involvement by the SDVE of other groups.

As can be readily seen from Table 2, SDVE respondents perceived that they involved others in their leadership activities to a high degree. Only in Region III were the mean scores higher on Cluster 7 than on Cluster 6. However, regional differences in mean scores were greater on Cluster 7 than on Cluster 6, indicating greater disagreement about what constituted "ideal" involvement than about the level of "actual" involvement by the SDVE.

Generally, SDVE respondents perceived somewhat less need for greater involvement of others than for enhancing the leadership role of the SDVE itself.

Comparing the three dimensions of SDVE role, it would appear that SDVE members ranked first the need for more leadership, followed by greater involvement of others, and as least desirable, greater regulation activities.

Attitude toward vocational-technical education, as assessed by Cluster 5, varied significantly among the SDVE groups in the nine regions. Mean scores ranged from a low score of .506 in Region II to a high score of .658 in Region VIII.

It is interesting to note that on those clusters (1, 2, 3, 4, 6 and 7) measuring perceptions of actual and ideal SDVE role dimensions, there was a tendency for SDVE respondents to score in rank order, which could perhaps be described as the "halo" effect so common in opinion or attitude inventories.

However, no such consistency was found in distribution of Cluster 5 scores, which would indicate that SDVE members' overall attitude toward vocational-technical education did not influence their perceptions concerning the appropriate functions of their agency.

Representatives of Local Schools, Area Vocational Schools and Higher Education

Over 40 percent of the entire sample is composed of a group of respondents representing educators not associated with state educational agencies. Table 3 presents the mean scores and standard deviations

Table 3

Regional Differences in Mean Cluster Scores of Selected Respondent Groups

2. Representatives of Local and Area Schools and Higher Education

Region	Number of SDVE Respondents	Clusters										
			1**	2**	3**	4**	5**	6**	7*	8**	9**	10 ^{ns}
I	95	M	.532	.594	.555	.631	.539	.628	.677	1.460	1.201	1.358
		S.D.	.272	.203	.251	.201	.165	.268	.155	.272	.264	.276
II	91	M	.555	.577	.491	.602	.481	.627	.692	1.437	1.280	1.367
		S.D.	.233	.188	.227	.198	.142	.255	.167	.256	.237	.267
III	117	M	.616	.630	.602	.611	.538	.643	.735	1.379	1.188	1.381
		S.D.	.260	.211	.248	.199	.162	.267	.181	.272	.243	.281
IV	46	M	.678	.648	.639	.678	.535	.750	.736	1.314	1.174	1.259
		S.D.	.231	.186	.228	.168	.146	.232	.164	.277	.212	.237
V	95	M	.575	.607	.570	.586	.540	.632	.671	1.424	1.168	1.344
		S.D.	.265	.220	.235	.204	.141	.250	.195	.267	.229	.288
VI	76	M	.562	.596	.507	.657	.491	.619	.686	1.459	1.308	1.362
		S.D.	.218	.174	.248	.158	.170	.243	.158	.246	.253	.266
VII	112	M	.626	.647	.592	.709	.526	.732	.758	1.370	1.263	1.307
		S.D.	.229	.178	.216	.124	.172	.207	.154	.254	.210	.235
VIII	66	M	.557	.558	.505	.549	.610	.719	.728	1.445	1.250	1.313
		S.D.	.256	.218	.267	.202	.167	.213	.151	.251	.255	.252
IX	103	M	.537	.623	.445	.564	.496	.638	.706	1.479	1.269	1.372
		S.D.	.251	.219	.260	.211	.147	.247	.184	.274	.254	.252
All States Combined	801	M	.582	.610	.543	.621	.527	.660	.710	1.421	1.232	1.346
		S.D.	.251	.205	.248	.193	.161	.263	.172	.268	.245	.266

** = Significant difference between regions at .01 level.

* = Significant difference between regions at .05 level.

ns = No significant difference between regions.

of this group in each of the 9 regions for the 10 item clusters. On each cluster except Cluster 10, Involvement Difference, significant differences are found in mean scores among regions.

This "client" group of the SDVE generally perceived the SDVE as performing its leadership, regulation and involvement roles at somewhat lower levels than did the SDVE itself. Also, there was greater variability of scores, as revealed by standard deviations, than among the SDVE group, indicating perhaps less knowledge of SDVE activities than that possessed by the agency members themselves.

Mean scores measuring perceived actual leadership by the SDVE (Cluster 1) ranged from .532 in Region I to .678 in Region IV. On ideal level of SDVE leadership functions (Cluster 2), these educators' expectations were somewhat higher than their level of recognition of actual leadership, but mean scores varied from a low score of .503 to a high score of .648. In all regions, this group expressed a high degree of need for more leadership by the SDVE, as indicated by mean scores on Cluster 8.

Mean scores on Clusters 3, 4, and 8 indicate varying perceptions of the regulatory role of the SDVE by this group of educators not associated directly with their state education agencies. Ideally, they seem to perceive the SDVE as more of a regulatory agency than as an agency providing education leadership. However, mean scores on Cluster 9 appear to indicate less need for more regulation than for more leadership.

This group of educators varies significantly from region to region in its perceptions of actual involvement (Cluster 6) and ideal involvement (Cluster 7) but indicates lack of significant differences among regions in the degree of need for greater involvement (Cluster 10).

In their attitude toward vocational-technical education, these educators revealed regional differences. In Region II their mean score was .481 while in Region VIII this group's mean score was .610.

Regional attitudes of these educators toward vocational-technical education varied inversely with their perceived need for greater involvement by the SDVE of other groups.¹² This finding would seem to indicate that the greater the involvement in SDVE leadership activities the

¹² A correlation coefficient of $-.33 \frac{1}{3}$, significant at the .025 level of confidence, evidenced the extent of this relationship.

more likely the respondent is to have more positive attitudes toward vocational-technical education.

Representatives of State Boards of Education, State
Advisory Councils and State Legislatures

Unfortunately, the national sample of this very important group representing vocational-technical education policy-makers had only 221 respondents to the Guide. Thus, the decision to analyze the scores of this group according to regions was somewhat tenuous.

In reviewing the data presented on Table 4, it can be readily seen that on only one cluster (5) are significant differences found for the mean scores of this group among regions. The lack of significant differences between regions may be due to a number of factors. It is possible that these lay persons, even though associated with educational affairs, have insufficient knowledge about state-level administration of vocational-technical education to respond to the kind of items contained in the Guide. Standard deviations reported for each cluster tend to confirm this possibility.

The wide spread in scores obtained by this group within regions, also, of course, contributes to the lack of significant differences among regions. Moreover, the small numbers of respondents within each region make it even more difficult to ascertain whether in actuality there may be significant differences in the responses of this group among regions.

Considering the size of sample, then, it is important to note that significant regional differences are found for this group of lay policy-makers in their attitudes toward vocational-technical education. In Region II, the mean Cluster 5 score is .451 while in Regions IV and VII the mean cluster scores are .569 and .568 respectively.

A very high inverse correlation¹³ was found between the regional mean scores on Cluster 5 and the regional mean scores on Cluster 10. This finding would indicate high Cluster 5 scores associated with low Cluster 1 scores, suggesting that the greater the involvement with vocational-technical education at the state level, the more positive the attitudes toward vocational-technical education.

¹³ $r = -.839$, significant at the .01 level of confidence.

Table 4

Regional Differences in Mean Cluster Scores of Selected Respondent Groups

3. State Board of Education, State Advisory Council,
and Legislature Members

Region	Number of SDVE Respondents	Clusters										
		1 ^{ns}	2 ^{ns}	3 ^{ns}	4 ^{ns}	5 [*]	6 ^{ns}	7 ^{ns}	8 ^{ns}	9 ^{ns}	10 ^{ns}	
I	35	M	.626	.556	.562	.674	.515	.611	.634	1.322	1.218	1.276
		S.D.	.318	.249	.368	.185	.199	.340	.197	.361	.385	.368
II	27	M	.647	.589	.573	.626	.451	.651	.688	1.313	1.193	1.319
		S.D.	.328	.214	.207	.188	.174	.224	.162	.261	.236	.220
III	19	M	.669	.585	.593	.677	.557	.664	.678	1.358	1.220	1.260
		S.D.	.228	.243	.339	.196	.137	.324	.265	.332	.410	.286
IV	23	M	.809	.678	.724	.714	.569	.773	.719	1.179	1.114	1.204
		S.D.	.181	.248	.198	.133	.139	.241	.208	.268	.240	.251
V	18	M	.665	.558	.683	.684	.470	.694	.725	1.345	1.231	1.287
		S.D.	.175	.220	.209	.165	.150	.205	.178	.333	.229	.251
VI	24	M	.623	.640	.507	.653	.465	.625	.706	1.448	1.262	1.373
		S.D.	.278	.168	.476	.147	.172	.288	.186	.333	.329	.328
VII	18	M	.717	.683	.634	.916	.568	.810	.751	1.195	1.156	1.160
		S.D.	.194	.225	.302	.173	.138	.239	.163	.250	.412	.284
VIII	18	M	.609	.516	.600	.602	.565	.655	.681	1.368	1.226	1.151
		S.D.	.289	.225	.206	.205	.136	.233	.188	.299	.221	.277
IX	39	M	.655	.646	.501	.659	.470	.649	.707	1.366	1.282	1.284
		S.D.	.295	.223	.327	.201	.171	.362	.175	.340	.352	.253
All States Com- bined	221	M	.665	.607	.585	.662	.508	.672	.695	1.326	1.217	1.266
		S.D.	.277	.232	.348	.183	.170	.330	.195	.318	.330	.293

* = Significant difference between regions at .05 level.

ns = No significant difference between regions.

Educators Directly Concerned with Vocational- Technical Education

Significant regional differences in mean scores were found for this group of vocational educators on all ten clusters, as indicated on Table 5.

On Cluster 1, Actual Leadership, mean scores ranged between .532 in Region II and .704 in Region IV. Mean scores tended to be somewhat higher for this group on Cluster 2, Ideal Leadership, than on Cluster 1, with a somewhat narrower range of mean scores (from .536 to .688) than on Cluster 1. This group of vocational educators, generally, perceived a relatively high level of actual SDVE leadership and perceived considerable need for even more SDVE leadership activity.

This group tended to perceive more actual SDVE regulation than actual SDVE leadership, and generally, seemed to feel less need for more regulation than for more leadership.

Regionally, there were significant differences in vocational educators' perceptions of SDVE involvement of others--both actual and ideal. However, this group in all regions consistently had relatively high mean scores on both Clusters 6 and 7. On the whole, they perceived less need for greater SDVE involvement than they did for increased SDVE leadership. Attitudes toward vocational-technical education varied significantly from region to region, with vocational educators in Region VIII having the highest mean scores on Cluster 5 and those in Region II, the lowest.

Educators Not Directly Concerned with Vocational-Technical Education

This group of educators evidenced significant regional differences on seven of the ten item clusters as indicated on Table 6. On actual SDVE leadership (Cluster 1) they indicated great regional disparity in how they perceived SDVE actual performance, with a low score of .502 in Region I compared with a high score of .677 in Region IV.

The group was not regionally differentiated in its perceptions of what the leadership role of the SDVE should be. Apparently, there was considerable agreement among these educators about the ideal leadership function of the SDVE (Cluster 2).

Table 5

Regional Differences in Mean Cluster Scores of Selected Respondent Groups

4. Vocational Educators

Region	Number of SDVE Respondents	Clusters										
			1**	2**	3**	4**	5**	6**	7**	8**	9**	10*
I	120	M	.613	.610	.628	.659	.602	.683	.666	1.380	1.162	1.284
		S.D.	.255	.208	.244	.191	.158	.249	.176	.277	.258	.278
II	106	M	.532	.624	.512	.634	.497	.694	.715	1.445	1.283	1.324
		S.D.	.248	.187	.226	.171	.161	.228	.173	.242	.236	.283
III	122	M	.655	.656	.568	.645	.571	.702	.739	1.412	1.216	1.264
		S.D.	.234	.195	.231	.176	.162	.231	.145	.253	.232	.269
IV	58	M	.704	.688	.679	.732	.577	.806	.776	1.274	1.164	1.182
		S.D.	.217	.182	.232	.155	.172	.206	.157	.247	.205	.226
V	103	M	.628	.627	.607	.627	.579	.705	.708	1.387	1.165	1.308
		S.D.	.259	.203	.201	.168	.153	.214	.153	.263	.200	.272
VI	102	M	.567	.617	.540	.614	.534	.618	.696	1.434	1.296	1.295
		S.D.	.218	.165	.213	.161	.175	.221	.137	.243	.222	.243
VII	98	M	.654	.677	.623	.725	.551	.789	.760	1.340	1.226	1.227
		S.D.	.198	.177	.226	.141	.159	.177	.165	.219	.247	.217
VIII	68	M	.616	.576	.540	.596	.647	.768	.757	1.400	1.240	1.309
		S.D.	.229	.193	.237	.151	.134	.204	.143	.237	.225	.209
IX	92	M	.574	.641	.405	.599	.556	.685	.728	1.433	1.272	1.317
		S.D.	.217	.181	.299	.190	.151	.238	.174	.227	.245	.263
All States Com- bined	869	M	.612	.634	.566	.646	.568	.717	.723	1.395	1.225	1.293
		S.D.	.238	.193	.246	.174	.163	.266	.161	.251	.239	.259

** = Significant difference between regions at .01 level.

* = Significant difference between regions at .05 level.

Table 6

Regional Differences in Mean Cluster Scores of Selected Respondent Groups

5. Non-Vocational Educators

Region	Number of SDVE Respondents	Clusters										
			1**	2 ^{ns}	3*	4**	5**	6**	7 ^{ns}	8**	9 ^{ns}	10*
I	82	M	.502	.611	.519	.625	.497	.586	.667	1.479	1.195	1.342
		S.D.	.304	.237	.304	.220	.166	.339	.223	.288	.300	.300
II	59	M	.632	.642	.550	.623	.459	.652	.688	1.351	1.221	1.323
		S.D.	.206	.189	.234	.178	.163	.244	.172	.231	.238	.257
III	71	M	.609	.622	.629	.604	.503	.616	.731	1.376	1.148	1.402
		S.D.	.232	.226	.265	.199	.146	.264	.193	.245	.247	.295
IV	32	M	.677	.651	.590	.683	.593	.730	.726	1.324	1.237	1.274
		S.D.	.204	.182	.243	.143	.118	.207	.165	.244	.264	.257
V	50	M	.596	.549	.588	.549	.516	.632	.649	1.391	1.121	1.304
		S.D.	.251	.241	.244	.228	.162	.277	.213	.245	.251	.245
VI	44	M	.598	.606	.548	.664	.449	.678	.689	1.430	1.264	1.344
		S.D.	.219	.195	.267	.203	.139	.235	.147	.270	.280	.273
VII	65	M	.656	.650	.655	.691	.498	.755	.752	1.328	1.214	1.275
		S.D.	.172	.192	.205	.151	.165	.217	.158	.266	.200	.259
VIII	41	M	.587	.525	.541	.483	.561	.695	.706	1.414	1.177	1.222
		S.D.	.248	.241	.246	.207	.178	.260	.161	.221	.268	.281
IX	77	M	.565	.614	.513	.560	.480	.665	.712	1.455	1.198	1.335
		S.D.	.255	.247	.256	.233	.148	.255	.187	.290	.239	.285
All States Com- bined	521	M	.594	.611	.571	.612	.500	.660	.702	1.401	1.194	1.322
		S.D.	.255	.223	.251	.210	.160	.266	.188	.266	.257	.280

** = Significant difference between regions at .01 level.

* = Significant difference between regions at .05 level.

ns = No significant difference between regions.

Although regional differences in perceived actual regulation by the SDVE (Cluster 3) were significant, the magnitude of the difference was less great than on actual leadership (Cluster 1). However, the reverse was true when this group's perceptions of ideal regulation and ideal leadership were compared. There were strong significant regional differences in how this group perceived the ideal regulatory role of the SDVE. Mean scores ranged from .483 in Region VIII to .691 in Region VII.

In assessing the actual involvement by the SDVE of other groups in leadership activities (Cluster 6), these non-vocational educators held significantly varying perceptions from region to region. Comparing the regional mean scores of this group on Clusters 1 and 6, there appeared to be a tendency for these educators to rank in similar order these two dimensions of the role of the SDVE.

Similarity of regional mean scores on Cluster 7, Ideal Involvement, indicates lack of significant differentiation by regions of how this group of educators perceives what the SDVE involvement function should be.

As with the vocational educators, non-vocational educators perceive greater need for both more leadership and involvement than for more regulation by the SDVE.

Attitudes toward vocational-technical education (Cluster 5) ranged from a low score of .449 to a high score of .593. Within regions the variance of opinion of this group was less than for any other cluster of items, as evidenced by the reported standard deviations.

Total Respondents

Table 7 summarizes the regional differences in the total number of persons (1, 898) responding to the Group Interview Guide.

When mean scores of all respondents are combined in each region, it is interesting to note that Region IV mean scores rank either first or second on all clusters except Cluster 4, Ideal Regulation, and that Region VII mean scores rank either first or second on all clusters except Cluster 5, Attitude toward Vocational-Technical Education. Both these regions fall into the Southern area of the United States.

Respondents in Regions V and VI appear to have held middle rank positions on all clusters, while respondents in the Middle and North

Table 7

Regional Differences in Mean Cluster Scores of Selected Respondent Groups

6. Total Respondents

Region	Number of SDVE Respondents	Clusters										
			1**	2**	3**	4**	5**	6**	7**	8**	9**	10**
I	277	M	.570	.599	.575	.638	.547	.627	.660	1.401	1.186	1.308
		S.D.	.281	.221	.299	.202	.168	.358	.194	.310	.309	.287
II	221	M	.612	.617	.523	.631	.474	.642	.697	1.413	1.264	1.351
		S.D.	.220	.188	.246	.170	.158	.261	.181	.250	.262	.271
III	253	M	.609	.634	.575	.647	.538	.642	.728	1.402	1.215	1.363
		S.D.	.253	.204	.271	.182	.158	.277	.171	.277	.269	.267
IV	129	M	.724	.663	.639	.636	.553	.756	.745	1.279	1.198	1.219
		S.D.	.208	.194	.254	.166	.157	.236	.170	.272	.253	.241
V	191	M	.628	.601	.583	.600	.548	.683	.687	1.375	1.172	1.347
		S.D.	.245	.232	.239	.189	.154	.237	.184	.250	.239	.241
VI	190	M	.592	.618	.538	.671	.504	.669	.693	1.427	1.282	1.300
		S.D.	.221	.173	.250	.153	.163	.240	.142	.259	.288	.270
VII	231	M	.667	.650	.621	.701	.538	.758	.740	1.337	1.210	1.248
		S.D.	.221	.198	.233	.158	.163	.224	.168	.254	.245	.245
VIII	147	M	.609	.556	.545	.559	.597	.732	.732	1.389	1.211	1.255
		S.D.	.244	.218	.256	.192	.156	.227	.162	.278	.255	.242
IX	259	M	.567	.619	.482	.601	.503	.645	.715	1.440	1.255	1.338
		S.D.	.236	.200	.275	.202	.152	.276	.175	.282	.277	.273
All States Com- bined	1898	M	.643	.608	.561	.640	.530	.676	.708	1.390	1.222	1.310
		S.D.	.244	.209	.269	.184	.165	.274	.176	.276	.272	.267

** = Significant difference between regions at .01 level.

Atlantic regions (I and II) and those on the Pacific Coast (IX) seem to have relatively lower mean scores on almost all clusters.

Thus, it would appear that there are significant regional differences in the perceptions of various groups of what constitutes the actual and ideal level of performance of SDVE leadership and regulation functions.

There appears to be some relationship between a group's general attitude toward vocational-technical education and this group's perceptions of what is and should be the role of the SDVE in leadership, regulation, and involvement of others in enhancing vocational-technical programs within the state.

V. PERCEPTIONS OF STATE-LEVEL ADMINISTRATION OF VOCATIONAL-TECHNICAL EDUCATION WITHIN REGIONS

Region I--New England States

All six states located in the Office-of-Education-designated Region I participated in the nationwide study of perceptions of state-level administration of vocational-technical education, and a total of 277 persons completed the Group Interview Guide. Table 8 presents the average scores obtained by each of six respondent groups on the ten clusters of items measuring perceptions of: (1) actual level of SDVE leadership activity; (2) ideal level of SDVE leadership activity; (3) actual level of SDVE regulatory activity; (4) ideal level of SDVE regulatory activity; (5) attitudes toward vocational-technical education; (6) actual SDVE involvement of others in SDVE leadership functions; (7) ideal level of SDVE involvement of others; (8) need for greater SDVE leadership; (9) need for more SDVE regulatory activities; and (10) need for greater involvement by the SDVE of other groups in the functions of the SDVE.

Table 8 also summarizes the statistical results of comparisons of mean cluster scores obtained by: (1) the SDVE group and the group of educators not associated with the state educational agency; (2) the SDVE group and the group of lay leaders; (3) the SDVE group and all other respondent groups combined; and (4) the group of educators directly concerned with vocational-technical education and the group of educators not directly associated with vocational-technical education.

From inspection of Table 8 it can be observed that the group composed of members of the SDVE in the six states of Region I consistently scored higher than any other group on the seven basic clusters. This group perceived that it was performing its actual leadership, regulation and involvement functions at a higher level than did any other group. Moreover, the SDVE group tended to hold higher ideal expectations for what its leadership and regulation activities should be than did any group with which it was compared. There appeared to be a high level of agreement among all groups concerning desirable (ideal) degree of involvement of others by the SDVE in performing its leadership function.

When all educators, including state agency staff, were divided into two groups for analysis, the group directly associated with vocational-technical education tended to score higher on all the basic clusters than did the group of educators not directly concerned with vocational-technical education. These scores would suggest that the group of educators who worked most closely with the SDVE and were the recipients of SDVE

Table 8

Summary of Selected Respondent Group Mean Cluster
Scores within Region I (New England)

	SDVE	Non-State Educators	Lay Leaders	All Voc. Educators	All Non- Voc. Educ.	All Except SDVE	Total Respondents
N	68	95	35	120	82	209	277
Cluster 1							
Mean	.662	.532	.626	.613	.502	.540	.570
S.D.	.209	.272	.318	.255	.304	.305	.281
Range	.568-.812	.433-.684	.455-.836	.455-.801	.397-.606	.467-.718	.497-.746
Cluster 2							
Mean	.640	.594	.556	.610	.611	.586	.599
S.D.	.221	.203	.249	.208	.237	.216	.221
Range	.602-.702	.499-.622	.413-.850	.551-.650	.547-.697	.523-.643	.543-.645
Cluster 3							
Mean	.673	.555	.562	.628	.519	.544	.575
S.D.	.217	.251	.368	.244	.304	.316	.299
Range	.495-.791	.403-.627	.430-.945	.461-.768	.433-.633	.411-.693	.428-.684
Cluster 4							
Mean	.686	.631	.674	.659	.625	.632	.638
S.D.	.166	.201	.185	.191	.220	.213	.202
Range	.610-.782	.535-.733	.513-.815	.599-.730	.473-.780	.568-.733	.592-.744
Cluster 5							
Mean	.632	.539	.515	.602	.497	.518	.547
S.D.	.139	.169	.199	.158	.166	.168	.168
Range	.525-.678	.400-.592	.396-.700	.507-.655	.366-.566	.401-.607	.432-.628
Cluster 6							
Mean	.734	.628	.611	.683	.586	.582	.627
S.D.	.241	.268	.340	.249	.339	.319	.358
Range	.641-.843	.593-.674	.460-.937	.609-.790	.523-.652	.524-.674	.562-.714
Cluster 7							
Mean	.675	.677	.634	.666	.667	.654	.660
S.D.	.186	.155	.197	.176	.223	.196	.194
Range	.536-.790	.653-.744	.523-.875	.579-.771	.590-.791	.602-.717	.584-.722
Cluster 8							
Mean	1.322	1.460	1.322	1.380	1.479	1.423	1.401
S.D.	.263	.273	.361	.277	.288	.322	.310
Cluster 9							
Mean	1.125	1.201	1.218	1.162	1.195	1.205	1.186
S.D.	.243	.264	.385	.258	.300	.327	.309
Cluster 10							
Mean	1.232	1.358	1.276	1.284	1.342	1.333	1.308
S.D.	.284	.276	.368	.278	.300	.304	.287

Summary of Statistical Results of Comparisons of Mean
Cluster Scores Obtained by Selected Respondent Groups

Groups Compared	Level of Confidence of Significant Differences in Mean Cluster Scores Between Groups									
	1	2	3	4	5	6	7	8	9	10
SDVE & Non-State Educators	.01	ns	.05	.05	.01	.05	ns	.01	.05	.01
SDVE & Lay Leaders	ns	.05	.05	ns	.01	.05	ns	ns	ns	ns
SDVE & All Other Respondents	.01	.05	.01	.01	.01	.01	ns	.01	.01	.01
Voc. & Non-Voc. Educators	.01	ns	.01	ns	.01	.01	ns	.01	ns	ns

services tended to value the role and functions of the state agency more than did those whose contact with the SDVE was less intimate.

All respondents perceived greater need for enhancing the SDVE leadership, regulation and involvement functions than did the SDVE members themselves. Hence, it might be deduced that within Region I rather wide disparities exist in concepts of the appropriate role of the state agency for vocational-technical education.

As might well be expected those respondents having the most positive attitudes toward vocational-technical education (Cluster 5) were those directly associated with vocational-technical education programs, whether in the state agency or in schools and colleges.

However, these mean cluster scores for Region I may be somewhat misleading. There appears to be great heterogeneity among the states comprising this region and it would be hazardous to attempt to over-generalize these results. Despite the great variance in reported mean scores for the six states, as a group they were significantly different from the other eight regions as indicated by the results presented in Chapter IV of this report.

Comparing the mean cluster scores for the several groups as presented on Table 8 with the mean scores obtained by the total sample of 39 states and Puerto Rico, reported on Table 17 (page 58), the SDVE group in Region I appears to be quite representative of the total sample of SDVE members. The SDVE group in Region I seems to have somewhat more positive attitudes toward vocational-technical education than does this group in the total sample.

The group composed of representatives of local schools, area vocational schools and higher education in Region I tend to have somewhat lower cluster scores than do their counterparts nationally.

The lay group in Region I obtained lower mean scores on Clusters 1, 2, and 6, and somewhat higher mean scores on Cluster 3, 4, 5, and 7 than did the total group. This group in Region I appears to have comparable mean scores on Clusters 8, 9, and 10 with the total sample.

Vocational educators in Region I tend to conform with the total sample in their responses to Clusters 1, 8, 9, and 10. Generally, this group in Region I have somewhat more positive perceptions of the role of the SDVE and of vocational-technical education than do vocational educators in the total sample. Non-vocational educators in Region I appear to have a less favorable image of the role of the SDVE than do their counterparts

nationally. Thus, there seems to be a greater divergence of opinion between these two groups of educators in Region I than in the total sample concerning the appropriate role of the SDVE.

Region II--Middle Atlantic States

All four states located in this region participated in the Study during the year 1966-67. Table 9 presents the mean scores of selected groups of individuals in Region II who responded to the ten clusters of items contained in the Guide, administered as a part of the Study.

In considering the results shown on this table, it is important to note that the group representing members of state boards of education, advisory councils and legislatures, has only 27 respondents. With so few cases it will not be possible to state with any certainty that this sample represents the group in the region generally.

Results indicated that the SDVE members perceived that they were engaging in a higher level of leadership, regulation and involvement than did any of the other groups studied. Interestingly, vocational educators as a group perceived significantly lower leadership performance by the SDVE than did the group representing educators not directly concerned with vocational education.

All groups perceived less actual SDVE regulation activities than actual SDVE leadership activities. It should be noted that non-state agency educators perceived the least amount of SDVE regulation of any group studied, and that as a group they tended to be in high agreement.

Both SDVE members and other educators (local, area and higher education) expected a higher level of SDVE leadership activity than they perceived was actually performed. SDVE members held a significantly higher ideal of their leadership role than did the educators not connected with the state education agency.

Vocational and non-vocational educators shared a similar perceived ideal level of performance of the SDVE leadership role. Both groups felt that the SDVE should be providing more leadership than it actually was doing.

In Region II all groups indicated that the SDVE should be performing more regulation activities than it presently was performing. Although both groups desired more regulation activities, the non-state agency

Table 9

Summary of Selected Respondent Group Mean Cluster
Scores within Region II (Middle Atlantic)

	SDVE	Non-State Educators	Lay Leaders	All Voc. Educators	All Non- Voc. Educ.	All Except SDVE	Total Respondents
N	54	91	27	106	59	167	221
Cluster 1							
Mean	.662	.555	.647	.532	.632	.573	.612
S.D.	.232	.233	.328	.248	.206	.229	.220
Range	.408-.796	.494-.601	.430-.828	.452-.665	.554-.747	.514-.640	.542-.686
Cluster 2							
Mean	.685	.577	.589	.624	.642	.595	.617
S.D.	.153	.188	.214	.187	.189	.198	.188
Range	.631-.734	.550-.641	.463-.772	.560-.687	.610-.684	.591-.610	.598-.633
Cluster 3							
Mean	.558	.491	.573	.512	.550	.511	.523
S.D.	.248	.227	.207	.226	.234	.255	.246
Range	.390-.685	.481-.501	.503-.778	.400-.576	.513-.591	.476-.555	.457-.593
Cluster 4							
Mean	.663	.602	.626	.634	.623	.620	.631
S.D.	.133	.198	.188	.171	.178	.184	.170
Range	.634-.722	.492-.706	.530-.712	.569-.699	.539-.721	.547-.672	.575-.683
Cluster 5							
Mean	.506	.481	.451	.497	.459	.464	.474
S.D.	.185	.142	.174	.161	.163	.153	.153
Range	.424-.559	.430-.540	.384-.482	.471-.539	.389-.543	.436-.504	.449-.520
Cluster 6							
Mean	.781	.627	.651	.694	.652	.597	.642
S.D.	.200	.255	.224	.228	.244	.264	.261
Range	.625-.871	.590-.671	.453-.738	.626-.789	.626-.688	.558-.633	.585-.703
Cluster 7							
Mean	.723	.692	.688	.715	.688	.670	.697
S.D.	.177	.167	.162	.173	.172	.177	.181
Range	.681-.775	.671-.725	.593-.744	.679-.765	.666-.737	.648-.722	.684-.729
Cluster 8							
Mean	1.380	1.437	1.313	1.445	1.351	1.424	1.413
S.D.	.252	.256	.261	.242	.231	.260	.250
Cluster 9							
Mean	1.258	1.280	1.193	1.283	1.221	1.267	1.264
S.D.	.239	.237	.236	.236	.238	.269	.262
Cluster 10							
Mean	1.253	1.367	1.319	1.324	1.323	1.383	1.351
S.D.	.267	.267	.220	.283	.257	.267	.271

Summary of Statistical Results of Comparisons of Mean
Cluster Scores Obtained by Selected Respondent Groups

Groups Compared	Level of Confidence of Significant Difference in Mean Cluster Scores Between Groups									
	1	2	3	4	5	6	7	8	9	10
SDVE & Non-State Educators	.01	ns	.05	.05	.01	.05	ns	.01	.05	.01
SDVE & Lay Leaders	ns	.05	.05	ns	.01	.05	ns	ns	ns	ns
SDVE & All Other Respondents	.01	.05	.01	.01	.01	.01	ns	.01	.01	.01
Voc. & Non-Voc. Educators	.01	ns	.01	ns	.01	.01	ns	.01	ns	ns

educators did not want as much additional regulation as did the SDVE group.

Generally there was moderate variability within the groups, indicating some agreement concerning the ideal level of SDVE regulation. The ranges in mean scores suggest that those most directly affected by SDVE performance--SDVE members themselves and their clients--were in greater agreement about what the regulation function of the SDVE should be than those not so directly affected by SDVE activities.

In perceived actual involvement of others, the discrepancy was indeed great between the SDVE group and all other groups. In Region II, it would appear that the SDVE group perceived itself as performing this function at a much higher level than did any other group.

Mean Cluster 7 scores of all groups except the SDVE indicate that these respondents feel that the SDVE should be engaging in considerably more involvement activities than that agency is now performing. On the other hand, the SDVE group itself seems to feel that it is now performing more of the involvement function than ideally it should.

Generally, the attitudes of respondents in Region II toward vocational-technical education were considerably less positive than those held by respondents in Region I, and for the total sample. The SDVE group's attitude toward vocational-technical education was not markedly more positive than the attitude held by any other group, except when all groups were combined and included many lay persons not directly associated with vocational education.

Compared with the total sample reported on Table 17, the SDVE group in Region II responded in similar fashion to their counterparts nationally. The group of non-state agency educators in Region II appeared to perceive SDVE actual performance at a lower level than did this group in the total sample. Generally, the group of non-vocational educators in Region II seemed to be less satisfied with the level of SDVE performance than was this group nationally. On the other hand, non-vocational educators appeared to score slightly higher than did those in the total group.

Region III--East Central States

Region III is composed of five Southern-oriented states, the District of Columbia, the Virgin Islands and Puerto Rico. Included in the Study were four states and Puerto Rico, with a total of 253 individual respondents to the Guide.

Unfortunately, there were only 19 persons in the group composed of state boards of education, state advisory councils and legislatures. Thus, a complete analysis of the results of the responses of this group could not be made.

Table 10 presents the mean scores of selected respondent groups on the ten item clusters from the Guide.

Among the several groups studied in Region III, there appeared to be substantial agreement in perceived level of SDVE actual leadership and regulation activities. Both the lay leadership group and the group representing all vocational educators tended to rate SDVE performance somewhat higher than did the SDVE group itself, but the differences were not significant. It would appear that in the region as a whole the SDVE group's self-perceptions were more or less congruent with the perceptions of others, suggesting realistic appraisal by the SDVE group of its actual leadership and regulation role.

In expressing their ideal conception of SDVE leadership, the SDVE group appeared to have the highest expectations for itself compared with any other group.

The several groups were not significantly differentiated in their concepts of what was the ideal level of SDVE regulation activities. The groups, generally, appeared to believe that a higher level of regulation than now provided by the SDVE would be desirable. Only the group of non-vocational educators indicated that the ideal level of SDVE regulation should be somewhat lower than was the actual SDVE performance of the regulatory function.

The SDVE group perceived the actual involvement by the SDVE of others in its activities at a significantly higher level than did any other group. Thus, on this dimension of SDVE role, there was not the congruence of opinion by respondents in the region that had been expressed on the other two aspects of SDVE function, leadership and regulation.

Also, when vocational educators were compared with non-vocational educators, it was found that vocational educators perceived a higher level of SDVE involvement of others than did the non-vocational educators.

All groups agreed that the ideal level of SDVE involvement of others should be greater than actually was the current practice. Only when the SDVE group was compared with the composite group of all other respondents was it found that the SDVE held significantly higher

Table 10

Summary of Selected Respondent Group Mean Cluster
Scores within Region III (East Central)

	SDVE	Non-State Educators	Lay Leaders	All Voc. Educators	All Non- Voc. Educ.	All Except SDVE	Total Respondents
N	51	117	19	122	71	202	253
Cluster 1 Mean S.D. Range	.614 .218 .502-.792	.616 .260 .571-.736	.669 .228 .558-.943	.665 .234 .530-.733	.609 .232 .531-.733	.602 .246 .563-.651	.609 .253 .566-.666
Cluster 2 Mean S.D. Range	.694 .181 .602-.767	.630 .211 .581-.669	.585 .243 .480-.693	.656 .195 .603-.717	.622 .226 .544-.697	.619 .210 .577-.650	.634 .204 .582-.676
Cluster 3 Mean S.D. Range	.546 .208 .458-.758	.602 .248 .564-.646	.593 .339 .490-.833	.568 .231 .492-.668	.629 .265 .527-.747	.583 .269 .542-.622	.575 .271 .545-.609
Cluster 4 Mean S.D. Range	.646 .189 .540-.738	.611 .199 .526-.771	.677 .196 .485-.853	.645 .176 .551-.776	.604 .199 .530-.668	.647 .188 .581-.774	.647 .182 .581-.761
Cluster 5 Mean S.D. Range	.606 .146 .552-.652	.538 .162 .420-.615	.557 .137 .490-.615	.571 .162 .488-.640	.503 .146 .389-.603	.522 .157 .455-.607	.538 .158 .472-.616
Cluster 6 Mean S.D. Range	.757 .201 .643-.900	.643 .267 .571-.743	.664 .324 .500-.827	.702 .231 .632-.799	.616 .264 .544-.688	.614 .292 .556-.648	.642 .277 .586-.676
Cluster 7 Mean S.D. Range	.776 .137 .740-.833	.735 .181 .681-.812	.678 .265 .590-.773	.739 .145 .701-.780	.731 .193 .673-.776	.716 .178 .646-.764	.728 .171 .667-.775
Cluster 8 Mean S.D.	1.430 .226	1.379 .272	1.358 .332	1.412 .253	1.376 .245	1.395 .282	1.402 .277
Cluster 9 Mean S.D.	1.241 .236	1.188 .243	1.220 .410	1.216 .232	1.148 .247	1.209 .278	1.215 .269
Cluster 10 Mean S.D.	1.317 .261	1.381 .281	1.260 .286	1.264 .269	1.402 .295	1.375 .277	1.363 .267

Summary of Statistical Results of Comparisons of Mean
Cluster Scores Obtained by Selected Respondent Groups

Groups Compared	Level of Confidence of Significant Differences in Mean Cluster Scores Between Groups									
	1	2	3	4	5	6	7	8	9	10
SDVE & Non-State Educators	ns	.05	ns	ns	.01	.05	ns	ns	ns	ns
SDVE & Lay Leaders	ns	.025	ns	ns	ns	.05	.025	.05	ns	ns
SDVE & All Other Respondents	ns	.01	ns	ns	.01	.01	.025	ns	ns	ns
Voc. & Non-Voc. Educators	ns	ns	.05	ns	.01	.01	ns	ns	.05	.01

aspirations for its own performance than did any other group.

Although the groups expressed varying perceptions of both the actual and ideal SDVE functions, they appeared to hold similar views with respect to the magnitude of need for the SDVE to assume a stronger leadership, regulation, and involvement role. Among these three dimensions, greater SDVE leadership activity was deemed to be the most important and increased regulation functions, the least important.

The group which expressed the greatest need for more involvement by the SDVE was the group composed of non-vocational educators. This group, also, indicated the least need by any group for more SDVE regulation activity.

Attitudes toward vocational-technical education expressed by all groups of respondents in Region III were somewhat more favorable than those indicated in the national sample. As would be expected, the SDVE group had the most positive attitudes, followed by the composite group composed of all vocational educators.

As indicated in Chapter IV, the SDVE group in Region III tended to perceive itself as performing its role at a lower level than in any other region. Moreover, both the group of lay policy-makers and the group of non-educators in Region III tended to perceive more SDVE leadership and regulatory activities than did the SDVE group itself.

Region IV--South Atlantic States

There are six states located in Region IV. Of these, only three states participated in the study of perceptions of state-level administration of vocational-technical education. With such a small sample of states resulting in only 129 respondents, the findings presented on Table 11 should be viewed as quite tentative.

In general, all respondents in Region IV perceived that their state divisions of vocational-technical education were performing their functions at a high level. In comparison with average scores nationally, and in all other regions, all groups in Region IV obtained the highest mean cluster scores measuring perceived actual leadership, regulation and involvement.

A high level of agreement in perceptions of the role of the SDVE was found between the group of SDVE members and the policy-making lay

Table 11

Summary of Selected Respondent Group Mean Cluster
Scores within Region IV (South Atlantic)

	SDVE	Non-State Educators	Lay Leaders	All Voc. Educators	All Non- Voc. Educ.	All Except SDVE	Total Respondents
N	33	46	23	58	32	96	129
Cluster 1							
Mean	.777	.678	.809	.704	.677	.700	.724
S.D.	.193	.231	.181	.217	.204	.217	.208
Range	.613-.837	.596-.819	.739-.863	.685-.770	.558-.810	.615-.757	.653-.783
Cluster 2							
Mean	.713	.648	.678	.688	.651	.636	.663
S.D.	.178	.186	.248	.182	.182	.201	.194
Range	.639-.833	.640-.657	.520-.821	.634-.749	.613-.684	.593-.701	.616-.721
Cluster 3							
Mean	.735	.639	.724	.679	.590	.606	.639
S.D.	.178	.228	.198	.232	.243	.273	.254
Range	.640-.783	.561-.754	.634-.798	.640-.731	.476-.677	.505-.703	.563-.729
Cluster 4							
Mean	.762	.678	.714	.732	.683	.698	.636
S.D.	.133	.168	.133	.155	.143	.146	.166
Range	.733-.817	.657-.708	.638-.786	.693-.776	.670-.688	.678-.740	.691-.753
Cluster 5							
Mean	.618	.535	.569	.577	.531	.515	.553
S.D.	.164	.146	.139	.172	.100	.152	.157
Range	.527-.667	.500-.582	.543-.578	.538-.626	.512-.544	.503-.553	.527-.583
Cluster 6							
Mean	.845	.750	.773	.806	.730	.725	.756
S.D.	.164	.232	.241	.206	.207	.252	.236
Range	.757-.903	.680-.832	.675-.880	.751-.864	.646-.813	.655-.833	.698-.856
Cluster 7							
Mean	.815	.736	.719	.776	.726	.721	.745
S.D.	.144	.164	.208	.157	.165	.176	.170
Range	.763-.870	.696-.805	.581-.841	.741-.832	.668-.780	.661-.806	.681-.822
Cluster 8							
Mean	1.222	1.314	1.179	1.274	1.324	1.298	1.279
S.D.	.194	.277	.268	.247	.244	.295	.272
Cluster 9							
Mean	1.136	1.174	1.114	1.164	1.237	1.219	1.198
S.D.	.178	.212	.240	.205	.264	.274	.253
Cluster 10							
Mean	1.130	1.259	1.204	1.182	1.274	1.249	1.219
S.D.	.206	.237	.251	.226	.257	.247	.241

Summary of Statistical Results of Comparisons of Mean
Cluster Scores Obtained by Selected Respondent Groups

Groups Compared	Level of Confidence of Significant Differences in Mean Cluster Scores Between Groups									
	1	2	3	4	5	6	7	8	9	10
SDVE & Non-State Educators	.05	ns	.025	.01	.01	.025	.025	.05	ns	.025
SDVE & Lay Leaders	ns	ns	ns	ns	ns	ns	.025	ns	ns	ns
SDVE & All Other Respondents	.05	.05	.01	.01	.01	.01	.01	.05	.025	.01
Voc. & Non-Voc. Educators	ns	ns	.05	ns	ns	.05	ns	ns	ns	.05

group. Although not statistically significant, this group of lay leaders perceived the SDVE as performing more leadership than did the SDVE group itself.

On the whole, representatives of local and area schools and higher education viewed the performance by the SDVE of its leadership, regulation and involvement functions considerably more negatively than did the SDVE group.

When all educators directly concerned with vocational-technical education were compared with the group of non-vocationally oriented educators, there appeared to be considerable agreement in their perceptions of the actual and ideal role of the SDVE. However, the group of vocational educators perceived far greater involvement in the activities of the SDVE than did educators not directly concerned with vocational-technical education.

With respect to attitudes toward vocational-technical education, all groups in Region IV tended to obtain scores comparable to the nation as a whole. The SDVE group in this region appeared to have somewhat less favorable attitudes than did their counterparts nationally. Within the region, however, this group of vocational educators held significantly more positive views toward their field than did other groups of educators.

Region V--North Central States

Four of the five states located in Region V participated in the national study of perceptions of state-level administration of vocational-technical education, and a total of 191 persons completed the Group Interview Guide. Of these only 18 were members of state boards of education, state advisory councils or state legislatures. Hence, very little can be said about the perceptions of this group of lay policy-makers.

The mean cluster scores presented on Table 12 suggest that the SDVE group in Region V tends to perceive its agency as performing its actual leadership, regulation and involvement function at a considerably higher level than do the other respondent groups, especially the group representing educators not associated with the state education agency.

Moreover, the SDVE members appeared to view their ideal leadership, regulation and involvement roles at a higher level than did the other respondent groups.

Table 12

Summary of Selected Respondent Group Mean Cluster
Scores within Region V (North Central)

	SDVE	Non-State Educators	Lay Leaders	All Voc. Educators	All Non- Voc. Educ.	All Except SDVE	Total Respondents
N	38	95	18	103	50	153	191
Cluster 1							
Mean	.703	.575	.665	.628	.596	.609	.628
S.D.	.198	.265	.175	.259	.251	.267	.245
Range	.463-.823	.411-.658	.594-.720	.528-.744	.507-.644	.473-.669	.551-.694
Cluster 2							
Mean	.640	.607	.558	.627	.549	.592	.601
S.D.	.176	.220	.220	.203	.241	.212	.232
Range	.551-.696	.567-.644	.474-.608	.577-.680	.481-.580	.567-.626	.578-.639
Cluster 3							
Mean	.647	.570	.683	.607	.588	.567	.583
S.D.	.169	.235	.209	.201	.244	.252	.239
Range	.461-.831	.525-.696	.646-.730	.525-.602	.513-.809	.511-.656	.503-.689
Cluster 4							
Mean	.639	.586	.684	.627	.549	.590	.600
S.D.	.156	.204	.165	.168	.228	.199	.189
Range	.543-.776	.515-.644	.608-.678	.556-.700	.424-.631	.540-.646	.541-.647
Cluster 5							
Mean	.610	.540	.470	.579	.516	.533	.548
S.D.	.165	.141	.150	.153	.162	.149	.154
Range	.474-.678	.461-.640	.381-.553	.464-.675	.452-.593	.438-.618	.443-.626
Cluster 6							
Mean	.778	.632	.694	.705	.632	.660	.683
S.D.	.178	.250	.205	.214	.277	.244	.237
Range	.713-.901	.556-.717	.658-.716	.610-.794	.600-.691	.592-.682	.625-.724
Cluster 7							
Mean	.724	.671	.725	.708	.649	.678	.687
S.D.	.151	.195	.178	.153	.213	.191	.184
Range	.672-.790	.631-.727	.600-.830	.662-.751	.628-.717	.632-.720	.662-.724
Cluster 8							
Mean	1.310	1.424	1.349	1.387	1.391	1.392	1.375
S.D.	.236	.267	.333	.263	.245	.254	.250
Cluster 9							
Mean	1.128	1.168	1.231	1.165	1.121	1.183	1.172
S.D.	.167	.229	.229	.200	.251	.253	.239
Cluster 10							
Mean	1.239	1.344	1.287	1.308	1.304	1.308	1.295
S.D.	.207	.288	.251	.272	.245	.272	.241

Summary of Statistical Results of Comparisons of Mean
Cluster Scores Obtained by Selected Respondent Groups

Groups Compared	Level of Confidence of Significant Differences in Mean Cluster Scores Between Groups									
	1	2	3	4	5	6	7	8	9	10
SDVE & Non-State Educators	.01	ns	ns	ns	.01	.05	.05	.025	ns	.025
SDVE & Lay Leaders	ns	ns	.05	ns	.01	.05	ns	ns	.05	ns
SDVE & All Other Respondents	.025	ns	.05	ns	.01	.01	ns	.05	ns	ns
Voc. & Non-Voc. Educators	ns	.025	ns	.01	.01	.05	.025	ns	ns	ns

In terms of need for greater SDVE leadership and involvement of others by the SDVE, the "client" group of educators had significantly higher expectations than did the SDVE group. This "client" group did not, however, perceive the need for much more regulation than the SDVE was currently performing.

In Region V, the attitudes of the several groups toward vocational-technical education were highly divergent. The SDVE members had significantly more positive attitudes than did the non-state agency educators or than did the total group of respondents other than the SDVE. Although less positive than the attitudes of the SDVE group, the group representing all vocational educators had a significantly higher mean Cluster 5 score than did the non-vocational educators.

When mean cluster scores for each respondent group were placed in rank order, there appeared to be a similar hierarchy of scores from cluster to cluster. This finding would perhaps suggest group bias or the manifestation of the "halo" effect in responding to items in the Guide.

In comparison with the total sample, respondent groups in Region V tended to obtain mean cluster scores comparable to the average mean scores of the nationwide group.

Region VI--Midwestern States

Among the seven states located in Region VI, five were included in the nationwide study. As indicated on Table 13, there appeared to be less disparity in the perceptions of state-level administration of vocational-technical education among respondent groups in this region than in any other region so far discussed.

Respondent groups in Region VI tended to have similar perceptions of the actual and ideal SDVE leadership role. Major differences in perceptions of the actual regulation and involvement functions of the SDVE were found between the SDVE group and other groups, but all groups appeared to share common perceptions of the ideal level of SDVE regulation and involvement activities. Generally, the respondents in Region VI perceived about the same amount of need for more SDVE leadership and regulation activity, but both non-state agency educators and lay policy-makers perceived a greater need than did the SDVE members for more SDVE involvement of others.

In Region VI the SDVE group held far more positive attitudes toward

Table 13

Summary of Selected Respondent Group Mean Cluster
Scores within Region VI (Midwest)

	SDVE	Non-State Educators	Lay Leaders	All Voc. Educators	All Non- Voc. Educ.	All Except SDVE	Total Respondents
N	50	76	24	102	44	140	190
Cluster 1							
Mean	.616	.562	.623	.567	.598	.583	.592
S.D.	.212	.218	.278	.218	.219	.231	.221
Range	.548-.716	.519-.655	.450-.800	.568-.592	.548-.653	.542-.614	.571-.624
Cluster 2							
Mean	.637	.596	.640	.617	.606	.614	.618
S.D.	.163	.174	.168	.165	.195	.180	.173
Range	.588-.668	.519-.638	.611-.723	.571-.654	.538-.715	.562-.653	.576-.656
Cluster 3							
Mean	.603	.507	.507	.540	.548	.515	.538
S.D.	.175	.248	.476	.213	.267	.271	.250
Range	.515-.704	.412-.653	.403-.593	.500-.547	.425-.703	.456-.608	.492-.634
Cluster 4							
Mean	.697	.657	.653	.614	.664	.661	.671
S.D.	.225	.158	.147	.161	.203	.162	.153
Range	.640-.818	.598-.739	.578-.830	.601-.720	.598-.773	.619-.746	.625-.734
Cluster 5							
Mean	.581	.491	.465	.534	.449	.500	.504
S.D.	.160	.170	.172	.175	.139	.157	.163
Range	.516-.740	.406-.616	.420-.585	.471-.680	.402-.575	.417-.586	.445-.630
Cluster 6							
Mean	.742	.619	.625	.682	.678	.692	.669
S.D.	.186	.243	.288	.221	.235	.268	.240
Range	.639-.837	.571-.733	.580-.670	.627-.742	.525-.735	.598-.717	.610-.748
Cluster 7							
Mean	.702	.686	.706	.696	.689	.688	.693
S.D.	.122	.158	.186	.137	.147	.151	.142
Range	.653-.790	.639-.726	.618-.835	.656-.726	.653-.793	.651-.741	.654-.726
Cluster 8							
Mean	1.398	1.459	1.448	1.434	1.430	1.437	1.427
S.D.	.253	.246	.333	.243	.270	.264	.259
Cluster 9							
Mean	1.256	1.308	1.262	1.296	1.264	1.291	1.282
S.D.	.196	.253	.329	.222	.280	.282	.288
Cluster 10							
Mean	1.260	1.362	1.373	1.295	1.344	1.316	1.300
S.D.	.214	.266	.328	.243	.273	.280	.270

Summary of Statistical Results of Comparisons of Mean
Cluster Scores Obtained by Selected Respondent Groups

Groups Compared	Level of Confidence of Significant Differences in Mean Cluster Scores Between Groups									
	1	2	3	4	5	6	7	8	9	10
SDVE & Non-State Educators	ns	ns	.01	ns	.01	.01	ns	ns	ns	.025
SDVE & Lay Leaders	ns	ns	ns	ns	.01	.01	ns	ns	ns	.05
SDVE & All Other Respondents	ns	ns	.025	ns	.01	.01	ns	ns	ns	ns
Voc. & Non-Voc. Educators	ns	ns	ns	ns	.01	ns	ns	ns	ns	ns

vocational-technical education than did any other respondent group.

Mean cluster scores of respondent groups in Region VI varied somewhat from those obtained by these groups in the total sample. The SDVE group in Region VI tended to have lower mean scores on all seven basic clusters than did their counterparts nationally. The Region VI groups of non-state agency educators also tended to have somewhat lower mean cluster scores except on Cluster 4, Ideal Regulation, than did this group in the national sample.

The group composed of members of state boards of education, advisory councils and legislatures, had somewhat higher mean scores on Cluster 2, Ideal Leadership, and Cluster 7, Ideal Involvement, than did this group in the total sample. On all other clusters, the Region VI group of lay leaders had lower mean scores than did the national sample.

Vocational educators in Region VI also tended to have lower mean cluster scores than did the group nationally. Non-vocational educators in Region VI, in comparison with their counterparts in the total sample, had higher Cluster 4 and Cluster 6 mean scores but lower mean scores on the other five basic clusters.

Thus, it would appear that respondents in Region VI had somewhat lower perceptions and expectations of state-level administration of vocational-technical education than did the nationwide groups of respondents.

Region VII--Southwestern States

Four of the five states located in Region VII participated in the nationwide study of perceptions of state-level administration of vocational-technical education. A total of 231 persons completed the Guide. However, only 18 of these persons were members of state boards of education, state advisory councils or state legislatures. Hence, results of analysis of the mean cluster scores obtained by this group would need to be interpreted with great caution.

Table 14 presents the mean scores of the selected respondent groups on the ten item clusters derived from the Guide.

The SDVE group in Region VII tended to perceive that their agencies performed more actual leadership, regulation and involvement than did other groups. All groups appeared to be in greater agreement about

Table 14

**Summary of Selected Respondent Group Mean Cluster
Scores within Region VII (South & Southwest)**

	SDVE	Non-State Educators	Lay Leaders	All Voc. Educators	All Non- Voc. Educ.	All Except SDVE	Total Respondents
N	50	112	18	98	65	181	231
Cluster 1							
Mean	.722	.626	.717	.654	.656	.652	.667
S.D.	.174	.229	.194	.198	.172	.225	.221
Range	.649-.828	.511-.667	.687-.873	.625-.751	.593-.744	.580-.699	.626-.710
Cluster 2							
Mean	.693	.647	.683	.677	.650	.637	.650
S.D.	.189	.178	.225	.177	.192	.193	.198
Range	.618-.836	.554-.681	.581-.943	.617-.759	.580-.689	.589-.651	.614-.671
Cluster 3							
Mean	.694	.592	.634	.623	.655	.601	.621
S.D.	.195	.216	.302	.226	.205	.236	.233
Range	.596-.855	.449-.681	.597-.757	.571-.736	.543-.728	.519-.667	.570-.693
Cluster 4							
Mean	.741	.709	.716	.725	.691	.693	.701
S.D.	.143	.124	.173	.141	.151	.165	.158
Range	.636-.849	.553-.779	.691-.770	.633-.817	.410-.780	.584-.729	.602-.767
Cluster 5							
Mean	.592	.526	.568	.551	.498	.523	.538
S.D.	.163	.172	.138	.159	.165	.159	.163
Range	.578-.611	.502-.578	.550-.581	.558-.581	.469-.612	.490-.578	.506-.578
Cluster 6							
Mean	.852	.732	.810	.789	.755	.732	.758
S.D.	.155	.207	.239	.177	.217	.234	.224
Range	.813-.965	.703-.762	.620-.867	.736-.885	.711-.808	.714-.745	.743-.773
Cluster 7							
Mean	.763	.758	.751	.760	.752	.734	.740
S.D.	.190	.154	.163	.165	.158	.165	.168
Range	.722-.883	.740-.789	.689-.820	.721-.843	.732-.793	.720-.748	.729-.766
Cluster 8							
Mean	1.309	1.370	1.195	1.340	1.328	1.345	1.337
S.D.	.199	.254	.250	.219	.266	.267	.254
Cluster 9							
Mean	1.157	1.263	1.156	1.226	1.214	1.225	1.210
S.D.	.264	.210	.412	.247	.200	.241	.245
Cluster 10							
Mean	1.133	1.307	1.160	1.227	1.275	1.274	1.248
S.D.	.231	.235	.284	.217	.259	.245	.245

**Summary of Statistical Results of Comparisons of Mean
Cluster Scores Obtained by Selected Respondent Groups**

Groups Compared	Level of Confidence of Significant Differences in Mean Cluster Scores Between Groups									
	1	2	3	4	5	6	7	8	9	10
SDVE & Non-State Educators	.01	ns	.01	ns	.01	.01	ns	.05	.01	.01
SDVE & Lay Leaders	ns	.01	.05	ns	ns	.01	ns	.01	ns	ns
SDVE & All Other Respondents	.05	.05	.01	ns	ns	.01	ns	ns	.05	.01
Voc. & Non-Voc. Educators	ns	ns	ns	ns	.025	ns	ns	ns	ns	ns

ideal SDVE functions than they were about actual SDVE performance.

Within the region variance among the four states sampled differed from group to group, but wide spreads in mean cluster scores were found for all groups. These results would seem to indicate lack of homogeneity of attitudes among respondent groups within the region. In Region VII, the SDVE group itself appeared to have the most diverse perceptions.

The SDVE group in Region VII had significantly more positive attitudes toward vocational-technical education than did either the group of non-state agency educators or the composite group of all respondents other than SDVE members. Also, vocational educators had a significantly higher Cluster 5 mean score than did non-vocational educators.

Respondents in Region VII appeared to hold similar attitudes toward vocational-technical education to those of the total sample.

Variance among the four samples of SDVE members within Region VII was not great. Non-vocational educators had the widest spread in mean scores, indicating least agreement in attitudes toward vocational-technical education.

The regional mean cluster scores of the SDVE group were considerably higher than those of the total sample on all basic clusters except Cluster 5, Attitudes Toward Vocational-Technical Education. All other groups in Region VII also tended to obtain higher mean cluster scores than did their counterparts nationally, but the difference was slight.

Region VIII--Rocky Mountain States

Among the five states located in Region VIII, three states participated in the national study of perceptions of state-level administration of vocational-technical education. The total number of respondents to the Guide was 147. With such a small regional sample, several sub groups were so limited in size that they could not be considered representative of those groups in the total population of the region. Thus, the results obtained for responses to the ten clusters of items from the Guide by groups in Region VIII (presented on Table 15) must be interpreted with great caution.

In discussing how respondent groups reacted to the ten item clusters, emphasis has been given to analysis of the mean cluster scores of the two groups, vocational and non-vocational educators, the group of

Table 15

Summary of Selected Respondent Group Mean Cluster
Scores within Region VIII (West-Rockies)

	SDVE	Non-State Educators	Lay Leaders	All Voc. Educators	All Non- Voc. Educ.	All Except SDVE	Total Respondents
N	27	66	18	68	41	120	147
Cluster 1 Mean S.D. Range	.641 .151 .602-.692	.557 .256 .381-.630	.609 .289 .548-.644	.616 .229 .480-.670	.587 .248 .521-.669	.600 .257 .524-.672	.609 .244 .535-.662
Cluster 2 Mean S.D. Range	.574 .213 .411-.698	.558 .218 .429-.627	.516 .225 .398-.609	.576 .193 .508-.650	.525 .241 .466-.574	.550 .219 .507-.596	.556 .218 .513-.609
Cluster 3 Mean S.D. Range	.581 .155 .458-.611	.505 .267 .359-.564	.600 .206 .465-.671	.540 .237 .405-.590	.541 .246 .463-.620	.537 .273 .478-.589	.545 .256 .475-.596
Cluster 4 Mean S.D. Range	.563 .155 .509-.622	.549 .202 .482-.591	.602 .205 .498-.643	.596 .151 .579-.606	.483 .207 .471-.499	.557 .200 .543-.578	.559 .192 .539-.580
Cluster 5 Mean S.D. Range	.658 .156 .545-.716	.610 .167 .538-.669	.565 .136 .503-.635	.647 .134 .554-.698	.561 .178 .493-.669	.583 .155 .519-.657	.597 .156 .522-.670
Cluster 6 Mean S.D. Range	.816 .180 .738-.854	.719 .213 .636-.745	.655 .233 .600-.703	.768 .204 .710-.814	.695 .260 .645-.726	.713 .233 .695-.744	.732 .227 .701-.767
Cluster 7 Mean S.D. Range	.760 .137 .722-.815	.728 .151 .689-.799	.681 .188 .650-.723	.757 .143 .724-.786	.706 .161 .628-.782	.725 .160 .683-.768	.732 .162 .691-.768
Cluster 8 Mean S.D.	1.365 .180	1.445 .251	1.368 .299	1.400 .237	1.414 .221	1.395 .262	1.389 .278
Cluster 9 Mean S.D.	1.174 .202	1.250 .255	1.226 .221	1.240 .225	1.177 .268	1.219 .266	1.211 .255
Cluster 10 Mean S.D.	1.254 .163	1.313 .252	1.151 .277	1.309 .209	1.222 .281	1.254 .257	1.255 .242

Summary of Statistical Results of Comparisons of Mean
Cluster Scores Obtained by Selected Respondent Groups

Groups Compared	Level of Confidence of Significant Differences in Mean Cluster Scores Between Groups									
	1	2	3	4	5	6	7	8	9	10
SDVE & Non-State Educators	.025	ns	ns	ns	ns	.05	ns	ns	ns	ns
SDVE & Lay Leaders	ns	ns	ns	ns	.05	.05	ns	ns	ns	ns
SDVE & All Other Respondents	ns	ns	ns	ns	.025	.025	ns	ns	ns	ns
Voc. & Non-Voc. Educators	ns	ns	ns	.01	.01	ns	.05	ns	ns	.05

non-state agency educators, and the total group of respondents. Generalizations concerning the perceptions of SDVE members and lay policy-makers have been limited to those results which appear to have some validity and consistency.

In Region VIII, there appeared to be a tendency for vocational and non-vocational educators to hold divergent views concerning the appropriate role and functions of the state agency for vocational-technical education. Also, significant differences in attitudes toward vocational-technical education were found between these two groups. Generally, it would seem that there was a greater schism in opinion between these two groups than between SDVE members and other groups. The SDVE group tended to share similar views with its constituent groups concerning the leadership, regulation and involvement functions of the SDVE.

Generally, all respondent groups in Region VIII had relatively positive attitudes toward vocational education. As would be expected, those respondents directly associated with the field had the most favorable opinions.

Within-group mean scores indicated considerable variation in perceptions, but the variances in mean scores among state samples were smaller than for other regions studied.

However, it must be borne in mind that only three states with only 147 participants constituted the sample for Region VIII. Whether or not the findings reported can be generalized for the entire region is moot.

Region IX--Far Western States

Among the seven states and territories located in Region IX, five were included in the nationwide study of perceptions of state-level administration of vocational-technical education. Not included in the nationwide study were the two U.S. territories located in this region. Altogether, 259 persons participated in the perceptions study.

Table 16 presents the mean cluster scores for the selected respondent groups in Region IX.

In conformance with other regions, the SDVE group appeared to perceive that its agencies performed more actual leadership, regulation and involvement of others than did the other educator groups studied. Generally, the lay policy leaders tended to agree with the SDVE group

Table 16

Summary of Selected Respondent Group Mean Cluster
Scores within Region IX (Pacific)

	SDVE	Non-State Educators	Lay Leaders	All Voc. Educators	All Non- Voc. Educ.	All Except SDVE	Total Respondents
N	46	103	39	92	77	213	259
Cluster 1							
Mean	.649	.537	.655	.547	.565	.549	.567
S.D.	.176	.251	.295	.217	.255	.265	.236
Range	.538-.715	.382-.671	.510-.750	.446-.690	.449-.685	.436-.591	.460-.620
Cluster 2							
Mean	.656	.623	.646	.641	.614	.611	.619
S.D.	.181	.219	.223	.181	.247	.206	.200
Range	.599-.774	.515-.709	.550-.738	.565-.746	.520-.709	.558-.671	.574-.673
Cluster 3							
Mean	.528	.445	.501	.405	.513	.501	.482
S.D.	.217	.260	.327	.299	.256	.288	.275
Range	.378-.627	.287-.538	.226-.710	.357-.576	.234-.590	.388-.561	.388-.544
Cluster 4							
Mean	.603	.564	.659	.599	.560	.602	.601
S.D.	.205	.211	.201	.190	.233	.208	.202
Range	.475-.736	.464-.728	.552-.709	.534-.729	.409-.750	.520-.709	.517-.714
Cluster 5							
Mean	.650	.496	.470	.556	.480	.485	.503
S.D.	.168	.143	.171	.151	.148	.146	.152
Range	.423-.673	.413-.599	.348-.570	.457-.670	.379-.567	.438-.541	.435-.573
Cluster 6							
Mean	.777	.638	.649	.685	.665	.631	.645
S.D.	.178	.247	.362	.238	.255	.285	.276
Range	.673-.867	.543-.713	.352-.818	.612-.773	.495-.788	.496-.688	.542-.692
Cluster 7							
Mean	.733	.706	.707	.728	.712	.715	.715
S.D.	.211	.184	.175	.174	.187	.167	.175
Range	.611-.847	.629-.780	.645-.820	.637-.788	.638-.803	.656-.754	.645-.753
Cluster 8							
Mean	1.371	1.479	1.366	1.433	1.455	1.455	1.440
S.D.	.188	.274	.340	.227	.290	.299	.282
Cluster 9							
Mean	1.216	1.269	1.282	1.272	1.198	1.262	1.255
S.D.	.232	.254	.352	.245	.239	.288	.277
Cluster 10							
Mean	1.236	1.372	1.284	1.317	1.335	1.360	1.338
S.D.	.239	.252	.253	.263	.285	.278	.273

Summary of Statistical Results of Comparisons of Mean
Cluster Scores Obtained by Selected Respondent Groups

Groups Compared	Level of Confidence of Significant Differences in Mean Cluster Scores Between Groups									
	1	2	3	4	5	6	7	8	9	10
SDVE & Non-State Educators	.01	ns	.05	ns	.01	.05	ns	.01	ns	.01
SDVE & Lay Leaders	ns	ns	ns	ns	.01	.05	ns	ns	ns	ns
SDVE & All Other Respondents	.01	ns	ns	ns	.01	.01	ns	.05	ns	ns
Voc. & Non-Voc. Educators	ns	ns	.01	ns	.01	ns	ns	ns	ns	ns

in their perceptions of actual SDVE performance of these functions. However, this group of lay leaders perceived significantly less involvement of others by the SDVE than did the SDVE members themselves.

Perceptions of the ideal role of the SDVE seemed to be shared by all groups.

The mean Cluster 5 scores of the SDVE group were much higher than those of all other groups. The SDVE group indicated far more favorable attitudes toward vocational-technical education than did any group with whom they were compared (non-state agency educators, lay leaders, and the composite group of all respondents except the SDVE).

As would be expected, vocational educators also held significantly more positive attitudes than did non-vocational educators.

All groups, with the notable exception of the SDVE members, in Region IX appeared to be less favorably inclined toward vocational-technical education than were these groups in the total sample.

Results Obtained by the Total Sample

Table 17 shows the combined mean scores and standard deviations of the total 1,898 respondents from 39 states and Puerto Rico, and summarizes the data presented on Tables 2 through 7 of Chapter IV of this report. Reference has been made to the results presented on this table in the preceding section containing an analysis of results of the study of perceptions of state-level administration of vocational-technical education, within regions.

In discussing regional findings from analysis of the ten clusters of items from the Guide, it was deemed useful to compare these results with what could be considered nationwide averages. These average scores were derived from the mean scores obtained by the several groups in each of the 40 state samples.

Significant differences between and among respondent groups were found for each of the ten item clusters, assessing perceived roles and functions of state agencies for vocational-technical education, and attitudes toward vocational-technical education.

As indicated in Chapter IV, groups tended to respond somewhat consistently to the clusters measuring the three dimensions of SDVE role:

Table 17

**Summary of Selected Respondent Group Mean Cluster
Scores within the Total Sample**

	SDVE	Non-State Educators	Lay Leaders	All Voc. Educators	All Non- Voc. Educ.	All Except SDVE	Total Respondents
N	417	801	221	869	521	1481	1898
Cluster 1							
Mean	.667	.582	.665	.612	.594	.598	.643
S.D.	.207	.251	.277	.238	.245	.257	.244
Range	.408-.837	.381-.819	.430-.943	.446-.801	.397-.810	.436-.757	.460-.783
Cluster 2							
Mean	.662	.600	.607	.637	.611	.586	.608
S.D.	.188	.209	.232	.196	.223	.207	.209
Range	.411-.836	.429-.709	.398-.943	.508-.759	.466-.715	.507-.701	.513-.721
Cluster 3							
Mean	.617	.543	.585	.566	.571	.549	.561
S.D.	.213	.248	.348	.246	.251	.271	.269
Range	.378-.855	.287-.754	.226-.945	.300-.768	.234-.809	.388-.703	.388-.729
Cluster 4							
Mean	.671	.621	.662	.646	.612	.633	.640
S.D.	.180	.193	.183	.174	.210	.193	.184
Range	.475-.849	.464-.779	.485-.853	.534-.817	.409-.780	.520-.774	.517-.767
Cluster 5							
Mean	.585	.527	.508	.568	.500	.512	.530
S.D.	.168	.161	.170	.163	.160	.154	.165
Range	.424-.740	.400-.669	.348-.700	.457-.698	.366-.669	.401-.657	.432-.670
Cluster 6							
Mean	.781	.660	.672	.717	.660	.649	.676
S.D.	.197	.263	.330	.226	.266	.276	.274
Range	.625-.965	.543-.832	.352-.880	.609-.885	.495-.813	.496-.833	.542-.856
Cluster 7							
Mean	.737	.710	.695	.723	.702	.701	.708
S.D.	.174	.172	.195	.161	.188	.177	.176
Range	.536-.883	.629-.812	.523-.841	.579-.832	.590-.803	.602-.806	.645-.822
Cluster 8							
Mean	1.349	1.421	1.326	1.395	1.401	1.402	1.390
S.D.	.250	.268	.318	.251	.266	.285	.276
Cluster 9							
Mean	1.190	1.232	1.217	1.225	1.194	1.231	1.222
S.D.	.232	.245	.330	.239	.257	.281	.272
Cluster 10							
Mean	1.233	1.346	1.266	1.293	1.322	1.325	1.310
S.D.	.247	.266	.293	.259	.280	.276	.267

**Summary of Statistical Results of Comparisons of Mean
Cluster Scores Obtained by Selected Respondent Groups**

Groups Compared	Level of Confidence of Significant Differences in Mean Cluster Scores Between Groups									
	1	2	3	4	5	6	7	8	9	10
SDVE & Non-State Educators	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
SDVE & Lay Leaders	.01	.01	ns	ns	.01	.01	.01	ns	ns	ns
SDVE & All Other Respondents	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
Voc. & Non-Voc. Educators	ns	.025	ns	.01	.01	.01	.025	ns	.025	ns

leadership, regulation and involvement. Attitudes toward vocational-technical education appeared to be related to perceived need for greater involvement by two groups: the lay policy-makers and the non-state agency educators.

On the whole, there appear to be more significant differences in perceived role and functions of the SDVE between the SDVE group and non-state agency educators than between vocationally oriented and non-vocationally oriented educators, with notable exceptions. Where significant mean cluster score differences were found between these two groups of educators, the direction appeared to be toward enlarging the scope of SDVE activities in terms of more leadership, more regulation and more involvement.

As might be expected, the group holding the most positive attitudes toward vocational-technical education was that of the SDVE members.

Summary and Conclusions

Results of the continued analysis of data obtained from the Guide administered to 1,898 individuals residing in 39 states and the Commonwealth of Puerto Rico appear to indicate that regional differences do exist in (1) the ways that various groups of persons perceive the roles and functions of state agencies for vocational-technical education, and (2) the kinds of attitudes held by these groups toward vocational-technical education.

Moreover, there seems to be evidence that intergroup perceptions vary from region to region. For example, the group representing SDVE staffs and the group composed of members of state boards of education, advisory councils and legislatures shared similar views concerning appropriate leadership, regulation and involvement functions of the SDVE in Region IX; but in all other regions such consistent support for the SDVE by these lay policy-makers was not found. In Regions V, VI, VII, and VIII, this lay group of policy-makers perceived either the same or greater need for more leadership activity by the SDVE than did the SDVE members themselves. In all other regions, the SDVE group had higher aspirations for leadership than did the lay group.

In most regions the greatest divergence in perceptions was between the SDVE group and the group of non-state agency educators. The SDVE group tended to have significantly higher mean cluster scores, but in Region III, the non-state agency educators felt that the SDVE was

performing more actual leadership and regulation than did the SDVE group.

Although there appear to be distinct differences in the responses of the various groups among the nine regions, within-region variability seemed to be great. Thus, factors other than geographic region would appear to be associated with mean cluster scores obtained by respondents within each of the states included in the study.

On the basis of earlier analyses of results from the Group Interview Guide for individual states, it seemed that the nature of the population within a state might be related to how these selected groups perceive the roles and functions of state agencies for vocational-technical education. Only one dimension of population characteristics was chosen for analysis in this study--percentage of population that was urban in the year 1965.

Chapter VI discusses the results of analysis of relationships between perceptions of state-level administration of vocational-technical education and percentage of state population that is urban.

VI. RELATIONSHIPS BETWEEN PERCEPTIONS OF STATE-LEVEL ADMINISTRATION OF VOCATIONAL-TECHNICAL EDUCATION WITHIN STATES AND PERCENTAGE OF STATE POPULATION THAT IS URBAN

In the total sample of 39 states, nine states have been classified as being primarily urban in nature and nine states as being predominantly rural. Among the nine states in which 75 percent of the total population resided in cities, it is interesting to note that three of these states are in Region I, two states in Region II, one state in Region VII, one state in Region VIII, and two states in Region IX. There are no predominantly urban states among the sample in Regions III, IV, V, and VI.

Among the nine states in which less than half the population can be classified as urban, one-third are found in Region III, two states are in Region IV and one state in each of Regions I, VI, VII, and IV. There are no states in this group from either Region II or Region V.

It can be suggested, perhaps, that one factor contributing to the within-region variability in perceptions of state-level administration of vocational-technical education discussed in the previous chapters may be the proportion of state population which is either mainly urban or predominantly rural. Table 18 presents the results of analysis of the relationship of mean cluster scores of three respondent groups with percentage of population that is urban in 18 states. Generally, the findings suggest that all three groups in the nine states in which the state population is less than 50 percent urban perceive both the actual and ideal SDVE leadership, regulation and involvement functions to be at a somewhat higher level than do their counterparts in the sample of nine states with 75 percent or more of the population classified as urban.

Among the group representing SDVE staff members, those from more rural states aspired to significantly greater leadership and regulation activities than did those in the more urban states (as indicated by mean scores on Clusters 2 and 4). Moreover, the more urban group of SDVE members perceived significantly less need for more SDVE regulatory functions than did those in more rural states. Both groups tended to agree upon the extent of need for more leadership and for more involvement of others in the activities of the SDVE.

In terms of perceived actual level of leadership, regulation and involvement activities, both groups of SDVE members had slightly higher scores than did the total sample of SDVE staff (see Table 2, p. 24).

Table 18

Relationship of Mean Cluster Scores of Selected Respondent Groups
with Percentage of Population which is Urban in 18 States

	Mean Cluster Scores									
	1	2	3	4	5	6	7	8	9	10
<u>SDVE Group</u>										
in the 9 states with <u>highest</u> percentage of pop. urban (75% or more)	.681	*	.628	*	.603	.799	.724	1.315	*	1.201
in the 9 states with <u>lowest</u> per- centage of pop. urban (less than 50%)	.696	.724	.669	.723	.615	.835	*	1.320	1.261	1.189
<u>Group of Non-State Agency Educators</u>										
in the 9 states with <u>highest</u> per- centage of pop. urban (75% or more)	.562	.619	*	.625	.527	.660	.719	*	*	1.359
in the 9 states with <u>lowest</u> per- centage of pop. urban (less than 50%)	.578	.625	.578	.625	.505	.660	.726	1.391	1.217	1.349
<u>Group of Lay Policy-Makers</u>										
in the 9 states with <u>highest</u> per- centage of pop. urban (75% or more)	.644	.600	*	.653	.495	*	.664	1.338	*	1.278
in the 9 states with <u>lowest</u> per- centage of pop. urban (less than 50%)	.673	.643	.633	.684	.509	.714	.711	1.300	1.158	1.210

* Difference in mean cluster scores of respondent group between the two groups of states is statistically significant.

In their attitudes toward vocational-technical education the SDVE members in both the urban and rural groups of states had substantially more favorable responses than did their counterparts nationally.

As can be readily observed from Table 18, the group representing educators from local schools, area schools and higher education consistently perceived less actual SDVE leadership, regulation and involvement activities than did the SDVE group. The group of non-state agency educators in the more urban states felt that the state agency was performing significantly less regulation than did this group in the nine more rural states.

Moreover, the group representing educators other than state agency personnel in the more urban states perceived significantly greater need for more of both leadership and regulation activity by the SDVE than did this group in the more rural states.

Whether a state was classified as urban or rural seemed to have little or no effect upon the perceptions of non-state agency educators of the actual or ideal leadership role, the ideal regulation function, or either the actual or ideal involvement activities of the SDVE.

In comparison with their counterparts nationally, both groups of non-state educators perceived a slightly lower level of actual SDVE leadership and regulation, but appeared to conceive greater ideal leadership, regulation and involvement roles for the SDVE (see Table 3, p. 27).

With respect to attitudes toward vocational-technical education, these non-state agency educators from both the most urban and the least urban states appeared to share similar views with the national average of educators representing local schools, area schools and higher education.

Between the two groups representing members of state boards of education, advisory councils and legislatures, the sample drawn from the most urban states perceived significantly less actual regulation and involvement of others by the SDVE than did the sample from the least urban states. This finding of significant differences between these two groups of lay policy-makers is particularly interesting due to the very small number of persons in this respondent category. It should be recalled that no significant regional differences concerning either actual or ideal functions of the SDVE were found for this group (see Table 4, p. 30).

However, there were significant regional differences among this group of lay policy-makers with respect to attitudes toward vocational-technical education. On the other hand, these differences were not apparent

when this group was dichotomized into representing urban versus rural states.

Summary and Conclusions

Results have been presented of the analysis of the relationship of perceptions of the sample groups (SDVE's, lay policy-makers and "clients") with the proportion of urban population in these groups' states of residence. These results appear to indicate a slight tendency for all three groups in the more rural states to perceive a somewhat higher level of SDVE performance of its leadership, regulation and involvement role than do these groups in the more urban states.

Moreover, these three groups in the more rural states appear to have slightly higher expectations for the ideal role of the SDVE in performing leadership, regulation and involvement functions.

Whether or not these groups reside in the most urban or the least urban states appears to have little or no effect upon their attitudes toward vocational-technical education.

With such limited data it is not possible to ascribe a causal relationship between perceived level of performance of SDVE functions and extent of urbanization in a state. It might be hypothesized that persons living in a more urban environment tend to be more critical of all aspects of state government and to expect a lower level of performance by state agency personnel generally than do people living in more rural states.

In the regional analysis (Chapter IV) all respondent groups in Region IV consistently obtained the highest mean cluster scores. It should be noted that two of the three states representing Region IV were among the nine states with less than 50 percent urban population. On the other hand, three of the five states in Region III were in this same sample of more rural states and it can be recalled that, in general, respondent groups in Region III obtained the lowest mean cluster scores. Although extent of urbanization appears to affect regional perceptions, it does not appear to be a decisive factor in explaining the variance in perceptions found within regions.

Chapter VII is devoted to analysis of the relationship between organizational factors and perceived characteristics of state-level administration of vocational-technical education.

VII. RELATIONSHIP BETWEEN PERCEPTIONS OF AND ORGANIZATION FOR STATE-LEVEL ADMINISTRATION OF VOCATIONAL-TECHNICAL EDUCATION

An important part of the Nationwide Study of the Administration of Vocational-Technical Education at the State Level was a report of the current status of state-level organization for administration of vocational-technical education.¹⁴ The first four sections of the report dealt with the selection of state boards for vocational education, the selection of state officers for the administration of vocational-technical education, and the position of vocational-technical education in the hierarchy of state administration of public education.

In all but four of the 50 states, members of the state board of education also constitute the state board for vocational education. In 38 states, members of either a separate board for vocational education or a joint board for education and vocational education are appointed by the governor and/or by the legislature. In 14 states, the board members are elected by the people in the state.

In eight of the 50 states the state director of vocational education serves as the executive officer of the state board for vocational education (whether or not this is a separate or a joint board of education). The chief state school officer (state superintendent of public instruction or commissioner of education) is designated the executive officer of the state board for vocational education in 42 states; is elected by popular vote in 15 states; and is appointed by the state board and/or governor, with consent of the legislature, in 27 states. In the eight states in which the state director is the executive officer of the state board, he is appointed by the state board. In these same eight states, the state superintendent of public instruction is an appointive office.

The position of vocational-technical education in the hierarchy of state administration of public education can be described in terms of the various levels of administrative responsibility assigned the state director of vocational education. On the first level of administration, the state director reports directly to either a separate state board of vocational education (in four states) or a state board having joint responsibility (in four states).

¹⁴ Swanson, op. cit., III, pp. 21-27 and Appendix III, Items I-IV.

On the second level of administration, the state director reports directly to the chief state school officer, who is also designated the executive officer of the state board for vocational education. This is the most common form of organizational structure and is found in 28 states.

On the third level of administration the state director reports to an assistant or associate superintendent of instruction. This situation is found in 14 states. Because the state director of vocational education is so far removed from the policy- and decision-making levels of administration, it can perhaps be implied that the position of vocational-technical education in these states has somewhat less prestige than in the other 36 states.

Comparison between States with Elected and with Appointed Boards of Education

Among the 39 states included in the perceptions study, 27 states had appointed state boards for vocational education and 12 had elected boards. There did not appear to be a clear regional pattern between these two methods of selecting members of state boards of education. However, in Regions III and IV no states elected their state boards of education, and in Regions I, II, and IX most of the states represented had appointed boards.

Analysis of results of the perceptions study was undertaken to determine whether there were any relationships between method of selection of state board of education members in a state and perceived role of the state division of vocational-technical education in that state.

Table 19 summarizes the mean cluster scores obtained by the three respondent groups (SDVE, non-state agency educators, and lay policy-makers) in those states with elected state boards of education and in those states with appointed state boards.

In those states in which state board members are appointed, there is a tendency for members of state divisions to perceive themselves as performing their leadership and regulation functions at a somewhat higher level than do those members in states in which the state board is elected. Moreover, the SDVE group in those states with appointed state boards appear to have higher aspirations for leadership and regulation than do their counterparts in states with elected boards. In both situations, SDVE members tend to perceive about the same level of SDVE involvement of others and to share a similar ideal degree of involvement of others.

Table 19

Relationship Between Mean Cluster Scores of Selected
Respondent Groups and Selection of the
State Board of Education

	Mean Cluster Scores									
	1	2	3	4	5	6	7	8	9	10
<u>SDVE Group</u>										
States in which State Board Members										
are elected	.668	**	**	**	.594	.786	.736	1.348	1.192	1.243
are appointed	.673	.677	.628	.681	.596	.783	.734	1.343	1.182	1.222
<u>Group of Non-State Agency Educators</u>										
States in which State Board Members										
are elected	.587	*		.613	.524	.681	.717	1.422	1.192	1.343
are appointed	.572	.602	.546	.609	.524	.651	.703	1.423	1.224	1.345
<u>Group of Lay Policy-Makers</u>										
States in which State Board Members										
are elected	.662	.575	.565	.649	.510	.633	.705	1.336	1.236	**
are appointed	.659	.620	.595	.665	.531	.681	.675	1.318	1.205	1.238

* = Significant difference at the .05 level of confidence.

** = Significant difference at the .01 level of confidence.

Among the educators from local and area schools and higher education there appears to be very little difference in perceptions of state-level administration, whether the state board is appointed or elected. However, statistically significant differences were found between mean scores on Clusters 2 and 6, indicating that these non-state agency educators perceive less actual SDVE regulation and more actual SDVE involvement of others, in those states with elected state boards than in those with appointed state boards. Moreover, this group of respondents in states with elected boards perceives significantly less need for more regulation activity by the SDVE (Cluster 9) than does the group in states with appointed boards.

The perceptions of state-level administration of vocational-technical education held by the group of lay policy-makers do not appear to be related to the method of selection of state boards of education, with one notable exception. This lay group in those states with elected state boards perceived significantly greater need for more involvement by the SDVE than they did in the states with appointed boards.

Attitudes held by all three groups toward vocational-technical education do not appear to be related to method of selection of state board members, although the group of lay policy-makers obtained slightly higher scores in those states with appointed boards.

Generally, it can be concluded that there is somewhat greater agreement among all three groups in their perceptions of state-level administration of vocational-technical education in those states in which state boards of education are elected than in those states in which the boards are appointed.

Comparison between States with Elected and with Appointed Chief State School Officers

The perceptions study includes respondents from 14 states in which the chief state school officer is elected and from 25 states in which he is appointed. Among the 14 states with elected state superintendents, none are located in Regions I and II. Among the 25 states with appointed chief school officers, none are in Region IV. Hence, there are some regional differences between these two groups of states which may be related to differences in perceptions of state-level administration of vocational-technical education.

Table 20 summarizes the results of analysis of the relationship between mean cluster scores of three groups of respondents in 39 states and

Table 20

Relationship Between Mean Cluster Scores of Selected
Respondent Groups and Selection of the
Chief State School Officer

	Mean Cluster Scores									
	1	2	3	4	5	6	7	8	9	10
<u>SDVE Group</u>										
States in which CSSO	**				**	**	***	***		*
is elected	.699	.678	.639	.684	.614	.809	.760	1.308	1.209	1.199
is appointed	.657	.653	.611	.662	.582	.773	.722	1.363	1.200	1.243
<u>Group of Non-State Agency Educators</u>										
States in which CSSO				***					***	
is elected	.575	.609	.544	.581	.539	.653	.708	1.427	1.208	1.353
is appointed	.580	.611	.539	.638	.540	.665	.707	1.420	1.279	1.340
<u>Group of Lay Policy-Makers</u>										
States in which CSSO	***				***	*				**
is elected	.716	.624	.623	.667	.541	.708	.687	1.277	1.181	1.214
is appointed	.644	.595	.564	.656	.488	.650	.697	1.329	1.233	1.292

* = Significant difference at the .05 level of confidence.
 ** = Significant difference at the .025 level of confidence.
 *** = Significant difference at the .01 level of confidence.

method of selection of the chief school officer in these states.

Members of the SDVE in those states in which the chief school officer is elected tend to have higher mean scores on all seven basic clusters than do those in states with appointed chief school officers. Results indicate that the former group deems that it is performing significantly more leadership and involvement of others than does the latter group of SDVE members. Moreover, SDVE members in states with elected chief school officers perceived significantly less need for more leadership and involvement activities than do those in states with appointed chief school officers.

In those states with elected state superintendents, SDVE members have more positive attitudes toward vocational-technical education than in those states with appointed state heads of instruction.

Generally, SDVE members in states with elected chief school officers obtained higher average scores on clusters of items from the Guide than did their counterparts in the national sample.

Educators representing local and area schools and higher education appear to share similar perceptions of state-level administration of vocational-technical education regardless of whether their state's chief school officer is appointed or elected. However, this group of respondents in those states with elected chief school officers perceive significantly less need for more SDVE regulation activity than do those in states with appointed chief school officers. Moreover, these non-state agency educators in states with elected superintendents perceive less need for more regulation by the SDVE than does this group nationally.

The group of lay persons representing state boards of education, advisory councils and legislatures appear to share similar perceptions with the SDVE members in their respective states. This lay group also perceives more actual leadership and involvement of others by the SDVE in those states with elected chief school officers than in those with appointed chief school officers.

Attitudes toward vocational-technical education held by lay policy-makers in states with elected chief school officers are more positive than in states with appointed state school heads.

In comparing the mean cluster scores of all three groups of respondents it would appear that in those states with appointed chief school officers there is less disagreement in perceptions of state-level administration

of vocational-technical education than in those states in which the state superintendent of instruction is elected.

Relationship of Perceptions with Position of the SDVE
in the State Public Education Hierarchy

Table 21 presents the mean cluster scores of the three groups of respondents to the Guide in 39 states classified in terms of the status of the state director of vocational education in the hierarchy of state organization for administration of public education.

In the five states sampled in which the state director reported directly to the state board for vocational education (either a separate or a joint board), members of the SDVE staff tended generally to perceive themselves as performing more actual leadership and regulation than did this group in states in which the state director reported either to the chief school officer or to a lower level of administrative authority. Moreover, this group of SDVE members whose director reported directly to the state board appeared to be somewhat more self-satisfied in that they perceived the least need for more leadership, regulation or involvement compared with the other two groups.

The group of SDVE members from states in which the status of the state director of vocational education was the lowest in the hierarchy of state-level administration of public education tended to have lower self-concepts of their leadership, regulation and involvement activities than did either of the groups with higher status. Moreover, they evidenced a striving for more leadership, regulation and involvement than did the two groups with higher status.

Differences between the mean cluster scores of the two groups of SDVE members from states in which the state director reported either directly to the state board or to the state superintendent of public instruction were not significant.

Attitudes toward vocational-technical education held by SDVE members did not appear to be significantly affected by their status in state-level administration of public education.

Among the group of respondents representing educators not associated with the state educational agency, the status of the SDVE was related to their perceptions of state-level administration of vocation education on

Table 21

Relationship of Mean Cluster Scores of Selected Respondent Groups
with Position of SDVE in State-Level Administration of
Public Education in 39 States

	Mean Cluster Scores									
	1	2	3	4	5	6	7	8	9	10
<u>SDVE Group</u>										
in 5 states in which the State Director of VE reports dir- ectly to the St. Board of Voc. Education	* .737	* .676	* .683	* .678	.628	* .801	.709	* 1.274	* 1.094	* 1.198
in 21 states in which the State Director of VE reports directly to the CSSO	.690	.674	.624	.696	.582	.803	.748	1.352	1.247	1.209
in 13 states in which the State Director of VE reports to a 2nd or 3rd level of admin.	.643	.635	.587	.622	.601	.748	.725	1.365	1.181	1.274
<u>Group of Non-State Agency Educators</u>										
in 5 states in which the State Director of VE reports dir- ectly to the St. Board of Voc. Education	.580	.619	.576	* .612	* .586	.684	.688	1.404	1.174	1.316
in 21 states in which the State Director of VE reports directly to the CSSO	.569	.602	.533	.640	.533	.652	.711	1.378	1.300	1.337
in 13 states in which the State Director of VE reports to a 2nd or 3rd level of admin.	.583	.620	.538	.587	.526	.640	.711	1.430	1.219	1.329
<u>Group of Lay Policy-Makers</u>										
in 5 states in which the State Director of VE reports dir- ectly to the St. Board of Voc. Education	* .729	* .556	* .644	* .663	.541	* .705	.658	1.225	1.177	* 1.175
in 21 states in which the State Director of VE reports directly to the CSSO	.680	.634	.606	.690	.505	.696	.710	1.313	1.216	1.210
in 13 states in which the State Director of VE reports to a 2nd or 3rd level of admin.	.614	.562	.515	.600	.487	.602	.661	1.340	1.192	1.287

* Difference in mean cluster scores of respondent group between the two groups of states is statistically significant.

only one dimension--that of the ideal regulatory role of the SDVE. The mean score on Cluster 4 (Ideal Regulation) of this group was highest for those in states in which the state director reported directly to the chief school officer.

However, the attitudes toward vocational education held by the group of non-state agency educators were the most positive for those representing states in which the state director reported directly to the state board. This finding would tend to indicate that the higher the administrative level of the state director the more favorable would be the attitudes toward vocational-technical education among educators not associated with the state educational agency.

In the five states in which the state director of vocational education reports directly to the state board for vocational education, the group representing members of state boards of education, advisory councils and legislatures perceive the greatest degree of actual leadership, regulation and involvement of others by the SDVE. It is possible to conjecture that in these states these lay policy-makers feel more closely identified with the state agency for vocational-technical education, and hence have more favorable perceptions of the actual role of the agency, than do their counterparts in states in which the state director does not report directly to the state board for vocational education, and the case for vocational education is presented by the chief school officer. Such an assertion is borne out, perhaps, by the finding that lay policy-makers in those states in which the state director reports directly to them express the least need for greater involvement in the activities of the SDVE.

The results of this analysis of mean cluster scores of three respondent groups to the Guide appear to confirm that there is a positive relationship between perceptions of state-level administration of vocational-technical education and the position of the state division of vocational-technical education in the hierarchy of the state administration of public education.

This chapter has reported results of analysis of the relationship between perceptions of and organization for state-level administration of vocational-technical education. Findings tend to confirm the thesis that perceptions in general of state administration of vocational-technical education are in greater congruence in those states whose boards of education are elected, chief school officers are appointed, and the state division of vocational education is an integral part of the state department of education.

In Chapter VIII selected indices of state vocational-technical education programs are discussed in terms of possible relationship with perceptions of state-level administration of vocational-technical education.

VIII. RELATIONSHIPS BETWEEN PERCEPTIONS OF STATE-LEVEL ADMINISTRATION OF VOCATIONAL-TECHNICAL EDUCATION AND SELECTED INDICES OF VOCATIONAL-TECHNICAL EDUCATION PROGRAMS

In the study of the Current Status of State-Level Organization for the Administration of Vocational-Technical Education enrollments, teachers, income and expenditures for vocational-technical education programs, as well as tabulations of SDVE professional staff, were reported for the year 1965-66.¹⁵ As expected, wide variations among the 50 states were found for each of these aspects of vocational-technical programs.

It appeared reasonable to assume that differences in perceptions of state-level administration might be related to actual differences in various aspects of vocational education programs among the 39 states included in the perceptions study.

Relationship between Perceptions of State-Level Administration and Ratio of Vocational Enrollments to State Population

Table 22 reports the mean cluster scores of three respondent groups in the 20 states with the highest and the lowest ratios of vocational-technical education enrollments to total population. All groups from the ten states with the highest ratio consistently obtained higher mean scores on all basic clusters.

Among the SDVE group these differences were statistically significant for three clusters of items: actual regulation, ideal involvement, and attitudes toward vocational-technical education.

Differences in perceptions of educators not associated with the state schools agency were more striking between the ten states with the highest ratio and the ten states with the lowest ratio of vocational enrollments to total population. This group of educators in states with the largest proportion of vocational enrollments perceived a higher level of actual SDVE performance of the leadership and regulation function, and expected higher ideal SDVE leadership and involvement

¹⁵ Swanson, op. cit., III, sections V-X, and Appendix III.

Table 22
Relationship of Mean Cluster Scores of Selected Respondent
Groups with Ratio of Total Vocational Education
Enrollments to Total Population in 20 States

	Mean Cluster Scores									
	1	2	3	4	5	6	7	8	9	10
<u>SDVE Group</u>										
in the 10 states with the <u>highest</u> ratio of VE en- rollment to total population	.681	.645	* .640	.680	* .602	.795	* .777	1.322	1.187	1.229
in the 10 states with the <u>lowest</u> ratio of VE en- rollment to total population	.667	.659	.603	.665	.566	.780	.700	1.357	1.212	1.217
<u>Group of Non-State Agency Educators</u>										
in the 10 states with the <u>highest</u> ratio of VE en- rollment to total population	* .588	* .631	* .566	.614	* .531	.667	* .731	1.421	1.233	1.363
in the 10 states with the <u>lowest</u> ratio of VE en- rollment to total population	.543	.552	.484	.587	.557	.632	.681	1.455	1.268	1.342
<u>Group of Lay Policy-Makers</u>										
in the 10 states with the <u>highest</u> ratio of VE en- rollment to total population	* .733	.622	* .651	.658	* .533	* .714	.705	* 1.264	* 1.145	1.246
in the 10 states with the <u>lowest</u> ratio of VE en- rollment to total population	.633	.632	.578	.671	.474	.632	.700	1.388	1.247	1.310

* Difference in mean scores of respondent group between the two groups of states is statistically significant.

activities than did the group from the ten states with the lowest ratio of vocational enrollments to total population.

However, the attitudes toward vocational-technical education held by representatives of local and area schools and higher education are significantly more favorable in the ten states which have, relatively, the lowest enrollments in vocational-technical education. This finding may suggest that because the size of enrollment does not measure the quality of vocational-technical education programs, an index of enrollments alone cannot differentiate between the attitudes toward vocational-technical education held by this group of educators.

Lay policy-makers in the ten states with the highest ratio of vocational enrollments to total population, also perceive a significantly higher level of SDVE leadership, regulation and involvement and perceive less need for more leadership and regulation than does this group in the ten states with the lowest ratio of enrollment to population. For this lay group attitudes toward vocational-technical education appear to be positively related to the ratio of vocational-technical education enrollments to total population.

Relationship between Perceptions of State-Level Administration
and Average Annual Percentage Increase in Vocational-
Technical Education Expenditures

Since the passage of the Vocational Education Act of 1963 (P.L. 88-210), vocational-technical education has been given great impetus. Expenditures for vocational-technical education programs have increased many-fold. Although federal funds account for much of the increase in support, there also have been sizable increments of local school and state funds for vocational-technical education.

Table 23 presents the mean cluster scores of the three respondent groups in both the ten states with highest average annual percentage increase in total vocational-technical education expenditures and the ten states with the lowest average annual percentage increase in total expenditures.

In general, there appeared to be little relationship between the perceptions of state-level administration held by SDVE members and the average annual percentage increase in vocational expenditures. However, this group in the ten states with the highest percentage increase

Table 23

Relationship of Mean Cluster Scores of Selected Respondent Groups
with Average Annual Percentage Increase in Vocational
Education Expenditures in 20 States

	Mean Cluster Scores									
	1	2	3	4	5	6	7	8	9	10
<u>SDVE Group</u>										
in the 10 states with the <u>highest</u> average increase in VE expenditures	.648	.658	.582	* .647	.571	* .788	.728	1.376	* 1.230	1.243
in the 10 states with the <u>lowest</u> average increase in VE expenditures	.629	.646	.614	.698	.582	.743	.727	1.388	1.284	1.258
<u>Group of Non-State Agency Educators</u>										
in the 10 states with the <u>highest</u> average increase in VE expenditures	.584	.612	.529	.642	.528	.680	.713	1.416	1.256	1.338
in the 10 states with the <u>lowest</u> average increase in VE expenditures	.579	.618	.549	.635	.542	.657	.706	1.424	1.233	1.356
<u>Group of Lay Policy-Makers</u>										
in the 10 states with the <u>highest</u> average increase in VE expenditures	.651	* .642	.610	* .704	* .454	.682	* .732	1.338	1.268	1.264
in the 10 states with the <u>lowest</u> average increase in VE expenditures	.678	.571	.570	.629	.527	.670	.665	1.314	1.210	1.270

* Difference in mean cluster scores of respondent group between the two groups of states is statistically significant.

in expenditures did perceive that their agency involved others to a significantly greater extent than did the group in the ten states with the lowest percentage increase in vocational expenditures. Also, this group of SDVE members perceived significantly less need for more regulation activity in the states with greater increases in expenditures than in states with smaller increases in expenditures.

In the ten states having the highest average annual percentage increases in expenditures, the group of lay policy-makers expected higher levels of SDVE performance than in the ten states having the lowest average percentage increases in expenditures. In the former group of states, the lay group had significantly higher average scores on the "ideal" clusters of leadership, regulation and involvement than in the latter group of states.

Attitudes toward vocational-technical education held by the lay policy-makers are significantly less favorable in the ten states with the highest percentage increase in vocational expenditures than in the ten states with the lowest increase of such expenditures. Perhaps this finding can be interpreted as indicating a resistance by lay leaders to increases in public funds for vocational-technical education which tends to color negatively their attitudes toward programs in vocational-technical education.

There appeared to be no significant relationship between the perceptions of non-state agency educators and average annual percentage increase in vocational-technical education expenditures.

Relationship between Perceptions of State-Level Administration
and Proportion of Local and State Funds to Total
Funds for Vocational-Technical Education

Table 24 compares the perceptions of state-level administration held by SDVE members in the ten states with the highest proportion of local and state funds for vocational-technical education with those members in the ten states with the lowest proportion of local and state funds. Significant differences were found in perceived need for greater regulation and involvement activities. In the former group of states, the SDVE members appeared to feel less need for more regulation but greater need for more involvement than did this group in the ten states with the lowest proportion of local and state funds for vocational-technical education.

Among the educators from schools and higher education, those in the

in expenditures did perceive that their agency involved others to a significantly greater extent than did the group in the ten states with the lowest percentage increase in vocational expenditures. Also, this group of SDVE members perceived significantly less need for more regulation activity in the states with greater increases in expenditures than in states with smaller increases in expenditures.

In the ten states having the highest average annual percentage increases in expenditures, the group of lay policy-makers expected higher levels of SDVE performance than in the ten states having the lowest average percentage increases in expenditures. In the former group of states, the lay group had significantly higher average scores on the "ideal" clusters of leadership, regulation and involvement than in the latter group of states.

Attitudes toward vocational-technical education held by the lay policy-makers are significantly less favorable in the ten states with the highest percentage increase in vocational expenditures than in the ten states with the lowest increase of such expenditures. Perhaps this finding can be interpreted as indicating a resistance by lay leaders to increases in public funds for vocational-technical education which tends to color negatively their attitudes toward programs in vocational-technical education.

There appeared to be no significant relationship between the perceptions of non-state agency educators and average annual percentage increase in vocational-technical education expenditures.

Relationship between Perceptions of State-Level Administration
and Proportion of Local and State Funds to Total
Funds for Vocational-Technical Education

Table 24 compares the perceptions of state-level administration held by SDVE members in the ten states with the highest proportion of local and state funds for vocational-technical education with those members in the ten states with the lowest proportion of local and state funds. Significant differences were found in perceived need for greater regulation and involvement activities. In the former group of states, the SDVE members appeared to feel less need for more regulation but greater need for more involvement than did this group in the ten states with the lowest proportion of local and state funds for vocational-technical education.

Among the educators from schools and higher education, those in the

Table 24

Relationship of Mean Cluster Scores of Selected Respondent Groups
with Proportion of Local and State Funds
to Total Vocational Education Funds

	Mean Cluster Scores									
	1	2	3	4	5	6	7	8	9	10
<u>SDVE Group</u>										
in the 10 states with the <u>highest</u> proportion of local and state funds for VE	.654	.646	.627	.658	.588	.764	.736	1.354	*	*
in the 10 states with the <u>lowest</u> proportion of local and state funds for VE	.662	.661	.635	.668	.616	.778	.740	1.351	1.171	1.280
<u>Group of Non-State Agency Educators</u>										
in the 10 states with the <u>highest</u> proportion of local and state funds for VE	*	*	*	*	*	*		*		
	.588	.625	.565	.658	.541	.681	.709	1.413	1.217	1.327
in the 10 states with the <u>lowest</u> proportion of local and state funds for VE	.547	.580	.518	.601	.601	.663	.706	1.457	1.245	1.340
<u>Group of Lay Policy-Makers</u>										
in the 10 states with the <u>highest</u> proportion of local and state funds for VE	*	*			*	*		*		*
	.735	.563	.627	.657	.555	.707	.676	1.227	1.158	1.202
in the 10 states with the <u>lowest</u> proportion of local and state funds for VE	.635	.638	.565	.652	.491	.635	.706	1.382	1.231	1.263

* Difference in mean clusters scores of respondent group between the two groups of states is statistically significant.

ten states with the highest proportion of local and state support for vocational-technical education perceived higher actual SDVE performance of leadership, regulation and involvement activities than did those in the ten states with the lowest proportion of local and state funds for vocational-technical education. The former group also expected a higher level of leadership and less ideal regulation than did the latter group of non-state agency educators.

The group composed of members of state boards of education, advisory councils and legislatures also perceived a greater degree of SDVE leadership and involvement and had higher expectations for the SDVE's performance of leadership in those states with greater local and state support than in the states with the lowest proportion of local and state support for vocational-technical education.

Results indicate a positive relationship between attitudes toward vocational-technical education held by lay policy leaders and proportion of local and state support for vocational-technical education. Perhaps this finding can be interpreted to mean that when lay policy-makers have favorable attitudes toward vocational-technical education they are more apt to invest more local and state funds in vocational-technical education programs.

Relationship of Perceptions of State-Level Administration with Other Indices of Vocational-Technical Education Programs

Table 25 summarizes the mean cluster scores of the three respondent groups in the ten states with the highest ratio of vocational-technical education funds to total enrollments in vocational-technical education and in the ten states with the lowest ratio of funds to enrollments. Results for all three groups tend to indicate that in the states with the lowest ratio of funds to enrollments, perceptions of state-level administration of vocational-technical education are somewhat more favorable than in the states with the highest ratio of funds to enrollment.

These findings seem to suggest that a low ratio of expenditures to enrollments is somehow perceived as a measure of the efficiency of the state agency for vocational-technical education.

Table 26 presents the results of analysis of the relationship between mean cluster scores and ratio of total SDVE funds to SDVE program staff. Significant differences in perceptions between groups in the ten states with the highest ratio and in the ten states with the lowest ratio were found in only three item clusters. The SDVE groups perceived a significantly higher ideal involvement function in the states with the highest ratio of SDVE funds to program staff. The lay policy-makers

Table 25

Relationship of Mean Cluster Scores of Selected Respondent Groups
with Ratio of Total Vocational Education Funds to Total
Vocational Education Enrollments in 20 States

	Mean Cluster Scores									
	1	2	3	4	5	6	7	8	9	10
<u>SDVE Group</u>										
in the 10 states with the <u>highest</u> ratio of total VE funds to total VE enrollment	.651	.652	.602	*	.582	*	.718	1.371	1.221	1.239
in the 10 states with the <u>lowest</u> ratio of total VE funds to total VE enrollment	.665	.641	.599	.617	.607	.802	.732	1.364	1.187	1.238
<u>Group of Non-State Agency Educators</u>										
in the 10 states with the <u>highest</u> ratio of total VE funds to total VE enrollment	*	*	.498	.613	.558	.646	*	*	1.271	1.347
in the 10 states with the <u>lowest</u> ratio of total VE funds to total VE enrollment	.611	.621	.532	.616	.551	.683	.724	1.398	1.236	1.348
<u>Group of Lay Policy-Makers</u>										
in the 10 states with the <u>highest</u> ratio of total VE funds to total VE enrollment	.662	.626	.548	.661	.493	*	.716	*	1.258	1.329
in the 10 states with the <u>lowest</u> ratio of total VE funds to total VE enrollment	.677	.591	.616	.636	.473	.705	.704	1.285	1.208	1.259

* Difference in mean cluster scores of respondent group between the two groups of states is statistically significant.

Table 26

Relationship of Mean Cluster Scores of Selected Respondent Groups
with Ratio of Total SDVE Funds to SDVE Program Staff in 20 States

	Mean Cluster Scores									
	1	2	3	4	5	6	7	8	9	10
<u>SDVE Group</u>										
in the 10 states with the <u>highest</u> ratio of total SDVE funds to SDVE program staff	.656	.660	.575	.647	.569	.780	*	1.363	1.222	1.264
in the 10 states with the <u>lowest</u> ratio of total SDVE funds to SDVE program staff	.676	.667	.610	.674	.583	.778	.682	1.354	1.204	1.227
<u>Group of Non-State Agency Educators</u>										
in the 10 states with the <u>highest</u> ratio of total SDVE funds to SDVE program staff	.550	.602	.479	.582	*	.564	.659	.713	1.462	1.272
in the 10 states with the <u>lowest</u> ratio of total SDVE funds to SDVE program staff	.554	.578	.515	.614	.505	.634	.691	1.437	1.249	1.363
<u>Group of Lay Policy-Makers</u>										
in the 10 states with the <u>highest</u> ratio of total SDVE funds to SDVE program staff	.645	.599	.589	.627	.499	*	.703	.711	1.320	1.211
in the 10 states with the <u>lowest</u> ratio of total SDVE funds to SDVE program staff	.643	.571	.561	.661	.489	.629	.666	1.320	1.230	1.310

* Difference in mean cluster scores of respondent group between the two groups of states is statistically significant.

in the states with the highest ratio of funds to staff perceived a greater amount of actual SDVE involvement of others. The group of non-state agency educators in the ten states with the highest ratios of SDVE funds to staff held more positive attitudes toward vocational-technical education than in the ten states with the lowest ratios.

These very limited findings possibly suggest that perceptions of state-level administration of vocational-technical education are positively related to the levels of financial support for program staff members in the state agency for vocational-technical education.

Summary and Conclusions

Possible correlates to perceptions of state-level administration of vocational-technical education have been suggested in this chapter. Although the findings have not been conclusive, it would appear that attitudes toward vocational-technical education and opinions concerning the actual and ideal levels of performance by the SDVE of its leadership, regulation and involvement functions are positively related to actual or real factors describing vocational-technical education programs. Among the indices studied, ratio of total vocational-technical enrollments to total population and proportion of local and state funds for vocational education appear to be most closely related to perceptions of state-level administration of vocational-technical education and attitudes toward vocational-technical education.

IX. GENERAL CONCLUSIONS

Chapters IV through VIII have discussed the factors associated with differences in perceptions of state-level administration of vocational education by selected groups, as measured by the Group Interview Guide. The findings would appear to warrant the following conclusions:

1. On the basis of a regional analysis it can be concluded that staff members of state divisions of vocational-technical education hold varying views concerning their proper role and functions, as measured by the three dimensions of leadership, regulation and involvement. This staff group in general appears to perceive itself as engaging in a greater amount of involvement activity than either leadership or regulation. However, regional differences emerge when this group assesses its aspired ideal levels of leadership and regulation. In Regions I (New England), IV (South Atlantic), VI (Midwest), and VII (Southwest), SDVE members place more emphasis on regulation than they do on leadership. In the other five regions, this group perceives a higher level of ideal leadership than of ideal regulation.
2. In general, it can be said that sampled educators from local area schools and higher education--the "clients" of the SDVE--judge the SDVE's performance of its functions more critically than do the agency members. The former group also tends to have lower expectations for the SDVE. However, there are distinct regional differences. Expectations for SDVE leadership are definitely lower than the nationwide average in Regions I (New England), II (Middle Atlantic), VI (Midwest), and VIII (Mountain).
3. Although the group of lay persons representing state boards of education, advisory councils and legislatures was small in number and apparently very heterogeneous, this group generally shared similar perceptions of actual SDVE role with the group composed of SDVE staff members in all regions except Regions III (East Central), IV (South Atlantic), V (North Central), and VII (Southwest). In the Southern-oriented states, these lay policy-makers tended to perceive the SDVE as performing its role on a higher level than did the SDVE group itself. In Region VI the lay group viewed the performance of the SDVE at a lower level than did the SDVE group.

4. When all educators within the sample associated directly with vocational-technical education were compared with educators not directly concerned with vocational education, the vocational educators appeared to be more supportive of the role of the SDVE. It perhaps can be concluded that those who were the direct recipients of SDVE services valued these services and, thus, expressed a higher level of satisfaction with SDVE performance of its functions than did those whose contact with the SDVE was necessarily limited. Another possible explanation of these results might be that vocational educators as a group identify with the SDVE and, thus, tend to want to protect the agency's image.
5. Attitudes toward vocational-technical education varied among all groups from region to region. Attitudes were least favorable in Region II and most positive in Region VIII. However, there were distinct differences among respondent groups within regions. Wide divergences of attitudes between vocational and non-vocational educators were found in all regions except I, IV, V, and IX.
6. Analysis of relationships in perceptions between groups residing in predominantly urban and predominantly rural states indicated a slight tendency for respondents from rural states to perceive a somewhat higher level of SDVE performance of its role and functions. These respondent groups also tended to have slightly higher expectations for the ideal role of the SDVE in performing leadership, regulation and involvement functions. It might be suggested that persons living in a more urban environment tend to be more critical of all aspects of state government and to expect a lower level of performance by state agency personnel generally than do people living in a more rural setting. Also, it is possible that the traditional vocational education programs more appropriately meet the needs of more rural populations than of persons living in a more urban setting.
7. From the study of possible relationships between perceptions of state-level administration of vocational-technical education and method of selection of state board of education members, it can be concluded that those groups composed of SDVE members, other educators and lay policy-makers tend to hold less differentiated views concerning SDVE performance in those states in which members of the state board of education are elected than in those states in which members are appointed.

Moreover, in those states in which state board of education members are elected, the SDVE group places greater emphasis upon the emerging leadership role and involvement of others than upon the traditional function of regulation.

8. Analysis of relationships between perceptions of state-level administration and method of selection of the chief school officer appears to indicate greater congruence of perceptions in those states in which the chief school officer is appointed than in those in which he is elected. Moreover, the self-concept of the SDVE members' own performance of their functions appears to be considerably more favorable than accorded this performance by the agency's "constituents."
9. On the other hand, study of the relationship between attitudes toward vocational-technical education and method of selection of the chief school officer would indicate that attitudes held by lay policy-makers and SDVE members are more favorable in those states in which the chief school officer is elected rather than appointed. Such a finding may suggest that in those states in which the state educational agency is in the public limelight and politically responsible to the people, members of this education establishment tend to respond in tune with the electorate's expectations for vocational-technical education.
10. The group of SDVE members from states in which the status of the state director of vocational education was the lowest in the hierarchy of state-level administration tended to have lower self-concepts of their role than did either of the groups with higher status. Correlatively, all groups including educators from local and area schools and higher education held the most positive attitudes toward vocational-technical education in those states in which the state director of vocational education reported directly to the state board for vocational-technical education.
11. It was found that there was a positive relationship between perceived level of performance of SDVE functions and size of enrollments in vocational-technical education programs. Apparently, in those states having the highest ratios of enrollments to total population, all groups, including the SDVE itself, at least partially attribute this phenomenon to the quality of performance by the state agency of its functions of leadership, regulation and involvement of others.

12. Expectations of the ideal role of the SDVE appeared to rise with average annual increases in total expenditures for vocational-technical education. In other words, the more funds available for these programs, the more was expected of state agency administration in the implementation of these funds by constituent groups. Moreover, in those states in which the proportion of local and state funds to total funds for vocational-technical education was highest, both lay policy-makers and educators from schools and higher education perceived the actual role of the SDVE more favorably than in those states with the lowest proportion of local and state funds to total funds.

In conclusion, it may be stated that there are regional differences in perceptions of state-level administration of vocational-technical education. These regional differences appear to be related to some extent to the degree of urbanization of state population. In those regions in which states tend to be more rural in population, perceptions of state-level administration of vocational-technical education appear to be somewhat more favorable. Also, there seem to be some regional differences in state organization for the administration of vocational-technical education which may be related to varying perceptions. Moreover, enrollments in and funds for vocational-technical education appear to vary from region to region and are apparently related to perceptions of state-level administration of vocational-technical education and to general attitudes toward vocational-technical education.

Thus, a number of factors appear to be associated with differences in perceptions of selected groups as measured by responses to the Group Interview Guide. However, the variability in response patterns within each of the groups studied was very great, indicating that many other factors have contributed to the views held by individuals composing these several groups.

No attempt was made either in the original study or in this continued analysis to isolate demographic or personality differences among the individual respondents in their perceptions of state-level administration of vocational-technical education. What bearing such factors as age, educational attainment, occupational level and experience, would have on individual perceptions or attitudes was not studied in this continued analysis because the original research design did not require the kind of sampling of respondents which would be necessary for such an investigation. Hence, appropriate and valid data were not available.

It appears, therefore, that future research dealing with relationships of various psychological and social correlates with concepts of role of the state agency for administration of vocational-technical education might contribute pertinent information to state directors of vocational education which might help them enhance their leadership role and improve state-level administration of vocational-technical education.